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Entitlement-Shifting Rules

Troy A. Rule

Arizona State University Sandra Day O'Connor College of Law, troy.rule@asu.edu

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TROY A. RULE

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TROY A. RULE*

Abstract: This Article describes and analyzes entitlement-shifting rules: laws that initially assign a legal “entitlement” to one party and subsequently reassign the same entitlement to a different party. Guido Calabresi and Douglas Melamed’s classic framework of property rules and liability rules involves two basic steps that yield four possible combinations of entitlement assignments and protective rules. These combinations are conventionally numbered in a particular order as rules one through four. Over the years, numerous scholars have built upon Calabresi and Melamed’s four-rule structure with add-on rules that tweak the model’s second step of assigning property or liability rule protection. By contrast, academicians have devoted far less attention to what this Article calls “entitlement-shifting rules”—rules that involve variations on the model’s first step of assigning the entitlement. Although government actors routinely shift entitlements in legitimate and useful ways, some types of entitlement shifting—especially certain laws and actions that shift core property entitlements—are difficult to defend on efficiency or equity grounds. This Article sets forth principles for identifying and analyzing entitlement-shifting rules, applies those principles to examine a diverse set of real-world examples ranging from civil asset forfeiture laws to proposed drone regulations, and describes some basic strategies for deterring the most costly and unjust forms of entitlement shifting. By drawing attention to entitlement-shifting rules and their impacts, this Article paints Calabresi and Melamed’s model in a revealing new light and provides additional perspective on some of the core deficiencies of modern takings laws.

INTRODUCTION

Nearly half a century has transpired since Guido Calabresi and Douglas Melamed first introduced their “Cathedral model” of property rules and liability rules in a 1972 issue of the *Harvard Law Review*.¹ Applying the Cathedral model in its original form involves two basic steps: assigning a specific legal “entitlement” to one of two competing parties or groups, and then determining

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* Joseph Feller Memorial Chair and Professor of Law, Arizona State University Sandra Day O’Connor College of Law. The author wishes to thank Henry Smith, Lee Fennell, Jonathan Nash, Erin Scharff, and numerous other faculty colleagues at Arizona State University’s Sandra Day O’Connor College of Law for their valuable insights and contributions to this Article.

¹ See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

whether to protect that entitlement with a “property rule” or a “liability rule.”² These steps yield four potential combinations of entitlement assignments and protective rules, which are numbered one through four in a particular order and are often displayed on a two-by-two diagram. Simple and revealing, Calabresi and Melamed’s framework has long been an important fixture in the law and economics literature.

Over the years, scholars have identified numerous ways of expanding beyond the Cathedral model’s conventional four-rule structure with new rules that modify the model’s second basic step of assigning property or liability rule protection.³ Among the most notable of these are Abraham Bell and Gideon Parchomovsky’s “pliability rules”—dynamic add-on rules that involve various types of switching between property rule and liability rule protection across time.⁴

In contrast, academicians have devoted far less attention to potential variations on the Cathedral model’s first step of assigning the entitlement. This Article seeks to help fill this gap by examining what it calls “entitlement-shifting rules”: rules that initially assign an entitlement to one party and then subsequently reassign the same entitlement to another party.

Government actors routinely shift entitlements in legitimate and useful ways, but certain types of entitlement shifting—especially certain laws and actions that shift core property entitlements—are difficult to defend on efficiency or equity grounds. This Article sets forth a simple framework for analyzing entitlement-shifting rules and applies the framework to several real-world examples, including intentional government flooding, civil asset forfeiture laws, and proposed drone regulations. The Article then highlights ways of reducing the most costly and unjust forms of entitlement shifting. By examining and evaluating several instances of entitlement-shifting rules and actions, this Article paints Calabresi and Melamed’s Cathedral model in yet another light and provides a new perspective on some of the primary deficiencies of modern takings laws.

Part I of this Article defines entitlement shifting and distinguishes it from other common government actions involving legal entitlements.⁵ Part II proffers a simple framework for analyzing entitlement-shifting rules and empha-

² *Id.* at 1092.

³ See *infra* note 20 and accompanying text.

⁴ See Abraham Bell & Gideon Parchomovsky, *Pliability Rules*, 101 MICH. L. REV. 1, 5 (2002) (“Pliability . . . rules are contingent rules that provide an entitlement owner with property rule or liability rule protection as long as some specified condition obtains; however, once the relevant condition changes, a different rule protects the entitlement—either liability or property, as the circumstances dictate. Pliability rules, in other words, are dynamic rules . . .”).

⁵ See *infra* notes 10–45 and accompanying text.

sizes the additional costs associated with laws that shift entitlements involving core property rights.⁶ Part III identifies and analyzes several specific examples of rules and actions that shift a single property entitlement at a time and emphasizes some simple means of mitigating the costs of such rules.⁷ Part IV then examines previous or proposed shifts of hundreds or even millions of property entitlements all at once, including those in the contexts of civil asset forfeiture laws, intentional government flooding of private land, and federal drone regulation.⁸ Part IV highlights the potential for governments to shift large sets of property entitlements to benefit special interest groups and describes strategies for limiting such abuses.⁹

I. WHAT ARE ENTITLEMENT-SHIFTING RULES?

A basic tenet of microeconomics is that market economies can function efficiently over the long run only if the legal systems in which they operate allocate and sufficiently protect market actors' core legal rights across time.¹⁰ Legal theorists have likewise argued for centuries that justice requires that governments consistently protect and honor existing allocated rights, including property rights.¹¹ Consistent with these principles, a host of common-law doctrines, statutory regimes, and constitutional provisions have long sought to safeguard countless types of legal entitlements.

Governments occasionally deviate from these principles, however, assigning valuable legal entitlements to certain parties only to then reassign them to entirely different parties.¹² Such reassignments of entitlements are underemphasized within the law and economics literature, where analytic models often implicitly assume that governments cannot or will not reshuffle entitlements after initially assigning them. To recognize the full implications of these

⁶ See *infra* notes 46–126 and accompanying text.

⁷ See *infra* notes 127–210 and accompanying text.

⁸ See *infra* notes 211–294 and accompanying text.

⁹ See *infra* notes 211–294 and accompanying text.

¹⁰ See JAMES R. KEARL, PRINCIPLES OF ECONOMICS 494 (1993) (“If an economy is to allocate its resources efficiently, the government must define and protect property rights and contract rights”); Daniel H. Cole, *Political Institutions, Judicial Review, and Private Property: A Comparative Institutional Analysis*, 15 SUP. CT. ECON. REV. 141, 152 (2007) (“[S]ecure property rights are an important component of the state’s institutional structure because they provide a necessary basis for capitalization and economic exchange”).

¹¹ One example of an equitable argument for respecting property rights is John Locke’s centuries-old labor-desert theory. See Anupam Chander, *The New, New Property*, 81 TEX. L. REV. 715, 742 (2003) (describing Locke’s labor theory of property as “one of moral desert,” which provides that “the law grants a person a property right in a thing because that person deserves it as a reward for the virtue of having created the major part of its value” (citing MARGARET JANE RADIN, REINTERPRETING PROPERTY 105–06 (1993)) (other citations omitted)).

¹² See *infra* notes 127–210 and accompanying text.

reassignments of entitlements, one must first grasp the basic features of entitlement theory. Accordingly, Section A of this Part provides a general overview of entitlement theory.¹³ Section B then defines entitlement-shifting rules and describes how they fit within the Cathedral model.¹⁴

A. Entitlement Theory: Coase, the Cathedral Model, and Beyond

Much of modern entitlement theory is rooted in a pair of academic concepts that have long been highly influential in law and economics circles.¹⁵ The first is the Coase Theorem, which holds that, in the absence of transaction costs, legal entitlements associated with scarce resources will flow to their highest valued users, regardless of who is initially assigned such entitlements.¹⁶ As Ronald Coase clearly recognized, few real-life situations are so devoid of transaction costs that the unconstrained private bargaining necessary to optimally allocate all relevant entitlements can readily occur.¹⁷ Still, Coase's observations about how legal rules allocate entitlements and how transaction costs can impact allocative efficiency have long undergirded many aspects of contemporary law and economics.¹⁸

A second classic entitlement theory construct that also furnishes much of the foundation for this Article is Guido Calabresi and Douglas Melamed's famed "Cathedral model" of property rules and liability rules.¹⁹ The Cathedral model built meaningfully upon Coase's work, proffering an accessible framework for analyzing and comparing potential assignments of legal entitlements

¹³ See *infra* notes 15–24 and accompanying text.

¹⁴ See *infra* notes 25–45 and accompanying text.

¹⁵ For an insightful exploration of the nature of "entitlements" and their use within the law and economics literature, see Henry E. Smith, *Complexity and the Cathedral: Making Law and Economics More Calabresian*, 48 EUR. J.L. & ECON. 43, 54–56 (2019) (defining an "entitlement" as "any right to insist on a given conflict being resolved in one's favor").

¹⁶ See generally R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960) (arriving at this theory through a discussion of socially harmful business practices). Coase never actually states his namesake theorem in his landmark article and is said to have credited George Stigler with first using the term "Coase Theorem." Stewart Schwab, *Coase Defends Coase: Why Lawyers Listen and Economists Do Not*, 87 MICH. L. REV. 1171, 1173 (1989).

¹⁷ See, e.g., Bell & Parchomovsky, *supra* note 4, at 9 n.23 ("[T]he Coase theorem does not guarantee efficiency in positive transaction cost settings.").

¹⁸ See, e.g., Jason Scott Johnston, *Strategic Bargaining and the Economic Theory of Contract Default Rules*, 100 YALE L.J. 615, 618 (1990) (referring to the Coase Theorem as an "enormously powerful and influential insight"); Daniel S. Levy & David Friedman, *The Revenge of the Redwoods? Reconsidering Property Rights and the Economic Allocation of Natural Resources*, 61 U. CHI. L. REV. 493, 493 (1994) (calling the Coase Theorem "[o]ne of the most influential" theories in "law and economics"); Clarisa Long, *Proprietary Rights and Why Initial Allocations Matter*, 49 EMORY L.J. 823, 827 (2000) ("One of the most influential theories regarding initial rights or entitlements and their transfer is the Coase Theorem.").

¹⁹ See generally Calabresi & Melamed, *supra* note 1.

and means of enforcing those entitlements. Countless academic articles have referenced or applied the Cathedral model over the past half century, and the model continues to be among the most impactful analytic tools in legal academic literature.²⁰

Applying Calabresi and Melamed's model to analyze a conflict over a particular entitlement generally involves two simple steps. The court or policymaker applying the model must first determine which of two or more competing parties should hold the scarce entitlement at issue. Then, once it has clearly assigned the entitlement to a particular group or party, the court or policymaker must decide whether to protect the entitlement with a "property rule" or a "liability rule."²¹ When an entitlement is protected by a property rule, other parties can acquire it from its holder only by purchasing it in a voluntary bargain.²² In contrast, when an entitlement is protected by a liability rule, one or more parties have a right to purchase the entitlement from its holder at a price approximating its objective value.²³ These two steps of assigning the entitlement and then choosing a means of legally protecting it yield four possible rules, each conventionally labeled in a particular order and displayed on a two-by-two diagram.²⁴

²⁰ Numerous academicians have noted the tremendous impact of the Cathedral model on law and economics research and scholarship over the years. *See, e.g.*, Bell & Parchomovsky, *supra* note 4, at 4 (characterizing the Cathedral model as having produced a "vast literature" in its wake, and stating that the model "and in particular, the foundational distinction between property and liability rules, has been accepted by virtually all the commentators—supporters and critics alike"); George S. Geis, *Internal Poison Pills*, 84 N.Y.U. L. REV. 1169, 1197 (2009) ("Except for the ubiquitous Coase Theorem, there may be no more famous law and economics framework than Guido Calabresi and Douglas Melamed's 'view of the cathedral.'" (footnote omitted)); James E. Krier & Stewart J. Schwab, *Essay, Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440, 440 (1995) (describing the Cathedral model as "perhaps the most widely known and influential contribution" to the law and economics literature that builds upon Coase's research).

²¹ Calabresi & Melamed, *supra* note 1, at 1092.

²² *Id.*

²³ *Id.* Calabresi and Melamed suggest in their article that the appropriate option price for unilateral acquisition of the entitlement may be its value to its current holder. *See id.* (noting that the proper valuation "may be what it is thought the original holder of the entitlement would have sold it for").

²⁴ This diagram is shown in Figure A below. *See infra* note 30 and accompanying text. Although Calabresi and Melamed did not include a two-by-two diagram in their article introducing the Cathedral model, the diagram has since become a common way of displaying the model's four original rules. *See* Calabresi & Melamed, *supra* note 1, at 1116 (providing examples of the four rules); *see also* Bell & Parchomovsky, *supra* note 4, at 29 (utilizing Calabresi and Melamed's two-by-two diagram); Richard R.W. Brooks, *The Relative Burden of Determining Property Rules and Liability Rules: Broken Elevators in the Cathedral*, 97 NW. U. L. REV. 267, 271–72 (2002) (same).

B. Entitlement-Shifting Rules Defined

Over the years, numerous academicians have sought to add to Calabresi and Melamed's simple Cathedral model framework by identifying new rules that go beyond the model's original four.²⁵ Professors Abraham Bell and Gideon Parchomovsky proposed some of the most influential possible additions to the model in their 2002 article, *Pliability Rules*.²⁶ Bell and Parchomovsky's work in particular underscored how certain laws and actions allow for dynamic switching between property rule and liability rule protection across time.²⁷ They defined "classic pliability rules" as rules that initially protect an entitlement with a property rule but subsequently switch to liability rule protection.²⁸ Conversely, they used "loperty rules" to describe rules that start out by providing liability rule protection but subsequently switch to property rule protection.²⁹ These two basic types of dynamic Cathedral model rules and a handful of others, which Bell and Parchomovsky referred to collectively as "pliability rules," each involve movements across the *vertical* axis on the model's conventional two-by-two diagram, illustrated as a dashed vertical line on Figure A below.³⁰

²⁵ See, e.g., Ian Ayres & Paul M. Goldbart, *Optimal Delegation and Decoupling in the Design of Liability Rules*, 100 MICH. L. REV. 1, 4–13 (2001) (describing possible "put-option" liability rules); Krier & Schwab, *supra* note 20, at 471 (describing a potential additive Cathedral model rule called the "double reverse twist"); Saul Levmore, *Unifying Remedies: Property Rules, Liability Rules, and Startling Rules*, 106 YALE L.J. 2149, 2150, 2162 (1997) (identifying multiple, additional Cathedral model rules and giving them generic names such as "Rule 5CE"); see also Georg von Wangenheim & Fernando Gomez, *Conflicts of Entitlements in Property Law: The Complexity and Monoitonicity of Rules*, 100 IOWA L. REV. 2389, 2392–93 (2015) (describing and highlighting the limitations of several of the add-on rules scholars have added to the Cathedral model in the decades following its introduction).

²⁶ See generally Bell & Parchomovsky, *supra* note 4.

²⁷ In their article, Bell and Parchomovsky repeatedly contrast the dynamic nature of pliability rules with the static nature of conventional property and liability rules. See *id.* at 5 ("Pliability rules . . . are dynamic rules, while property and liability rules are static."); see also *id.* at 26 ("Calabresi and Melamed's model is static; ours is dynamic.").

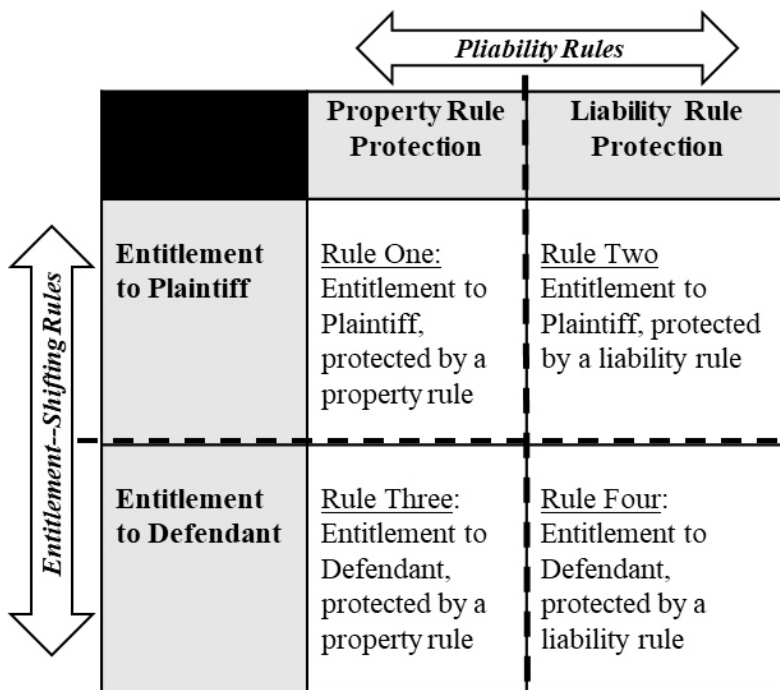
²⁸ See *id.* at 31 (describing "classic pliability rules" as rules that "involve the transformation of an entitlement from property rule to liability rule protection").

²⁹ See *id.* at 53 (defining "loperty rules" as rules that "begin with liability rule protection, which, upon the occurrence of a triggering event, is transformed into property rule protection").

³⁰ Bell and Parchomovsky's article also identified and labeled sub-categories of pliability rules, some of which appeared on a diagram in their article similar to the diagram in Figure A. *Id.* at 30. Although these additional rules are intentionally omitted from the Figure A diagram to better highlight the distinction between pliability rules and entitlement-shifting rules, as defined in this Article, most of them (e.g., zero order pliability, simultaneous pliability, and title shifting pliability rules) are mentioned elsewhere in this Article. See *infra* notes 37, 133, and 174–177 and accompanying text.

NOTE: Because not all platforms support graphic material, Figure A is archived at: <https://www.bc.edu/content/dam/bc1/schools/law/pdf/law-review-content/BCLR/62-4/Figure-A-graphic-A1b.pdf> [<https://perma.cc/E43G-MM9U>].

Figure A: Basic Categories of Dynamic Cathedral Model Rules.



Because they were focused primarily on ways to substitute between property rules and liability rules, Bell and Parchomovsky understandably devoted less attention to what this Article calls “entitlement-shifting rules”: laws and government actions that cause movements across the dashed *horizontal* line on Figure A’s two-by-two diagram. Laws falling into this second major category of dynamic Cathedral model add-on rules, which initially assign an entitlement to one party but then reassign it later to a different party without any accompanying exchange of compensation, are less frequently acknowledged in the academic literature. Such limited attention could be partly due to a common implicit assumption that, once a legal rule or government action has initially allocated an entitlement, reassigning that entitlement is not an acceptable or viable option.³¹

³¹ Even Calabresi and Melamed seemed to embrace the notion that, after a government has initially allocated an entitlement, that entitlement is not eligible for reassignment. See Calabresi & Melamed, *supra* note 1, at 1090 (“Having made its initial choice, society must enforce that choice.”); see also Yun-chien Chang, *Optional Law in Property: Theoretical Critiques and a New View of the Cathedral*, 9 N.Y.U. J.L. & LIBERTY 459, 472 (2015) (observing that, in most instances, property “entitlements are already assigned when the cases appear in court” so “[t]he court does not have much room to re-assign entitlements from the original owner to a new owner”).

Although Bell and Parchomovsky clearly recognized that certain types of legal rules, such as adverse possession laws, shift entitlements, they opted to label them as just another type of pliability rule.³² Such use of the word “pliability” to describe rules that shift entitlements may be somewhat fitting in the sense that entitlement-shifting rules are flexible or “pliable” in nature. On the whole, however, categorizing entitlement-shifting rules as “pliability” rules arguably produces more confusion than clarity. The term “pliability” in the context of the Cathedral model is an obvious mishmash of the words “property” and “liability,” in the same way that the word “loperty” blends “liability” and “property.” Even Bell and Parchomovsky’s own basic definition of pliability rules described them as rules that toggle between property rule and liability rule protection.³³

In light of this, a more suitable nomenclature for dynamic Cathedral model rules is one that uses the umbrella term “pliability” to describe only those rules that involve switching between property and liability rule protection in either direction, as illustrated on Figure A above. Meanwhile, “entitlement-shifting rules” is a more descriptively accurate term for laws and actions that involve uncompensated shifts in entitlements between stakeholders—movements across the horizontal axis of the Cathedral model diagram as shown on Figure A. The balance of this Article employs this adjusted terminological approach.

1. Distinguishing Entitlement Transfers Under Liability Rules from Entitlement-Shifting Rules

It is critical to note that, although legal entitlements change hands all of the time, only a small subset of those transfers involve entitlement-shifting rules. To be clear: entitlement shifting does *not* occur when parties voluntarily transfer an entitlement pursuant to an agreement or when a transfer is compelled under a liability rule in exchange for monetary or in-kind compensation.³⁴ Indeed, the compensation involved in those transactions is clear evidence that no law or government action ever altered the entitlement’s initial

³² Bell and Parchomovsky specifically classified adverse possession laws as “title shifting pliability rules,” which they defined as “combination[s] of property rules in which the triggering of a condition transfers property rule protection from the original entitlement holder to another.” Bell & Parchomovsky, *supra* note 4, at 6.

³³ *See id.* at 5 (defining pliability rules as “contingent rules that provide an entitlement owner with property rule or liability rule protection as long as some specified condition obtains; however, once the relevant condition changes, a different rule protects the entitlement—either liability or property, as the circumstances dictate”).

³⁴ The term “liability rule” appears to have originated with Calabresi and Melamed. *See* Calabresi & Melamed, *supra* note 1, at 1092 (“Whenever someone may destroy the initial entitlement if he is willing to pay an objectively determined value for it, an entitlement is protected by a liability rule.”).

assignment.³⁵ Rules Two and Four of the Cathedral model, which protect initially assigned entitlements with liability rules, thus do not contemplate any entitlement shifting and are not entitlement-shifting rules. Although both of these rules allow for unilaterally compelled transfers of entitlements away from their initial entitlement holders, the compensation requirements embedded into both rules honor how those entitlements were initially assigned. Accordingly, no entitlement shifting occurs when governments acquire private property for just compensation through an eminent domain proceeding or regulatory taking.³⁶ Entitlement shifting likewise did or does not occur under the old mill acts,³⁷ modern compulsory unitization statutes in oil and gas law,³⁸ or any other laws allowing valuable entitlements to unilaterally shift to new parties upon the payment of compensation to the initial entitlement holders.³⁹

On similar reasoning, no entitlement shifting happens when laws or government actions transfer away entitlements while simultaneously conferring adequate in-kind benefits upon losing parties.⁴⁰ For example, when a city im-

³⁵ As Coase emphasized, such compensated transfers of entitlements are often essential to achieving allocative efficiency. See Coase, *supra* note 16, at 15 (“[I]f such market transactions are costless, such a rearrangement of rights will always take place if it would lead to an increase in the value of production.”).

³⁶ See Eugene Kontorovich, *The Constitution in Two Dimensions: A Transaction Cost Analysis of Constitutional Remedies*, 91 VA. L. REV. 1135, 1161 (2005) (“The Just Compensation Clause provides a liability rule as the exclusive form of protection against takings of property for public use, such as eminent domain.”).

³⁷ Most mill acts were nineteenth-century state legislative acts that generally allowed mill owners to flood some nearby land but required the owners to compensate neighbors for resulting damages, sometimes in excess of one hundred percent of the amount of the damages. Henry E. Smith, *Property and Property Rules*, 79 N.Y.U. L. REV. 1719, 1736 (2004). Mill acts are often referred to by property and law and economics scholars as an example of a statutorily enacted liability rule. See, e.g., *id.* (“The mill acts, which used liability rules to overcome potential hold-out problems, are famous in the liability rule literature . . .”). Bell and Parchomovsky categorized mill act statutes as examples of “simultaneous pliability rules” because they provided mere liability rule protection under certain narrow circumstances, but otherwise furnished property rule protection. Bell & Parchomovsky, *supra* note 4, at 52.

³⁸ See Troy A. Rule, *Property Rights and Modern Energy*, 20 GEO. MASON L. REV. 803, 833 (2013) (“Compulsory unitization laws . . . effectively substitute liability rules for property rules as a way of overcoming holdout problems and other transaction costs while still promoting equity and fairness in fossil-fuel extraction.”).

³⁹ Iowa’s solar access statute, which allows landowners with rooftop solar panels to unilaterally acquire easement rights across neighboring airspace to protect the solar array from shading, is one other example of a statutorily enacted liability rule approach. See Troy A. Rule, *Shadows on the Cathedral: Solar Access Laws in a Different Light*, 2010 U. ILL. L. REV. 851, 892 (“By requiring Neighbors compensation, the Iowa statute acknowledges Neighbors’ entitlement to their airspace rights, classifying the statute as an application of Rule Four of the Cathedral Model.”).

⁴⁰ This concept is visible in the familiar regulatory takings law principle that government actions, which reshuffle entitlements but provide “average reciprocity of advantage” to all citizens involved, are less likely to trigger compensable takings. The phrase “average reciprocity of advantage” appeared in Justice Oliver Wendell Holmes’s famous early regulatory takings law opinion in *Pennsylvania Coal*

poses a new forty-foot height restriction in a residential area, each landowner within the affected area loses entitlements to build structures in excess of forty feet but simultaneously receives valuable benefits in return because all others in the neighborhood are similarly prohibited from building in excess of that height.⁴¹ Receipt of such in-kind benefits may compensate losers of entitlements enough that these rules more closely resemble applications of liability rules than of entitlement-shifting rules.⁴²

2. “Clarifying” Versus “Shifting” Entitlements

Laws that merely clarify the scope or allocation of unassigned or unestablished entitlements likewise involve no entitlement shifting. Statutes, regulations, and judicial decisions that more precisely define fuzzy entitlements are sometimes needed when new technologies or shifts in social priorities cause new assets to emerge or cause certain resources to become significantly more valuable.⁴³ For instance, new statutes were enacted and new caselaw developed in the mid-twentieth century to delineate property interests in atmospheric moisture in response to technological advancements involving that resource.⁴⁴ These laws merely clarified entitlements and did not shift them because the entitlements at issue had never previously been legally assigned.

Co. v. Mahon, 260 U.S. 393, 415 (1922), and the U.S. Supreme Court implicitly incorporated it into its much-maligned *ad hoc* regulatory takings test in *Penn Central Transportation Co. v. New York City*, 438 U.S. 104, 133, 136 (1978). Although the *Penn Central* test’s “average reciprocity of advantage” factor seems reasonable on its face, the line-drawing problems inherent in applying it have generated considerable criticism over the years. See, e.g., William W. Wade & Robert L. Bunting, *Average Reciprocity of Advantage: “Magic Words” or Economic Reality—Lessons from Palazzolo*, 39 URB. LAW. 319, 319 (2007) (describing “average reciprocity of advantage” as “a phrase even more vexing to regulatory takings than the *Penn Central* test,” and arguing that the “Supreme Court and lower court decisions have obscured rather than clarified the concept”).

⁴¹ See JAMES A. KUSHNER, *SUBDIVISION LAW AND GROWTH MANAGEMENT* § 3:7 (2d ed. 2019) (stating that those land use laws that are “[e]asiest to sustain” against regulatory takings claims are “planning and subdivision requirements presenting an ‘average reciprocity of advantage,’ whereby the property regulated is enhanced in value because of uniform restrictions, such as . . . height restrictions” (footnote omitted)).

⁴² Concededly, certain instances involving partial compensation occupy gray areas between entitlement-shifting rules and mere applications of liability rules that are not resolved through the distinctions drawn in this Article.

⁴³ Property theorists often attribute this idea to Harold Demsetz, who famously observed that property rights in a resource tend to emerge to help “internalize externalities when the gains of internalization become larger than the cost of internalization.” Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 350 (1967). An externality arises when “the activity of one entity . . . directly affects the welfare of another in a way that is not transmitted by market prices.” HARVEY S. ROSEN, *PUBLIC FINANCE* 86 (5th ed. 1999).

⁴⁴ See Jianlin Chen, *Optimal Property Rights for Emerging Natural Resources: A Case Study on Owning Atmospheric Moisture*, 50 U. MICH. J.L. REFORM 47, 50–51 (2016) (describing how, after technological advancements first made it possible to harness atmospheric moisture, there were “nu-

On the other hand, some laws and government actions that purport to merely clarify entitlements may really be aimed at shifting them from one group or party to another. Because of this risk, as highlighted in Part IV below, courts and policymakers should apply extra scrutiny to proposed statutes or legal doctrines that purport to clarify entitlements to ensure that such proposals are not actually disguised entitlement-shifting rules.⁴⁵

II. WHEN IS ENTITLEMENT SHIFTING JUSTIFIED?

Government decisionmakers who encounter existing or proposed entitlement-shifting rules can generally respond to them in one of three ways.⁴⁶ The most straightforward approach is to simply allow the entitlement-shifting rule to persist or proceed as is. For instance, in a jurisdiction that allows successful adverse possessors to claim title without compensating original owners, this approach involves continued application of that rule. A second, opposite approach is to prohibit entitlement shifting and strictly protect the initial entitlement holder's entitlement with a property rule instead.⁴⁷ In the context of adverse possession, this approach requires all-out rejection of the adverse possession doctrine in favor of a rule that never allows squatters or encroachers to acquire title.⁴⁸ A third, middle-ground approach is to convert the entitlement-shifting rule to a liability or pliability rule by requiring the payment of compensation for any unilateral transfers of the entitlement at issue.⁴⁹ For adverse possession, this would involve allowing successful adverse possessors to take title but only after compensating original title holders for their losses.

Of course, the difficulty lies in determining which of the three aforementioned approaches should apply to any given entitlement-shifting rule. Although intuition rightly suggests that certain types of entitlement-shifting rules are far more defensible than others, some type of methodology is needed to help distinguish laudable ones from troubling ones. Sections A and B of this Part are an initial attempt to construct such a framework capable of accounting for the primary costs, benefits, and distributional impacts resulting from entitlement-shifting rules.⁵⁰ Section C then identifies some specific types of enti-

merous legislative and regulatory responses (at both state and federal levels) and a handful of judicial decisions, some of which led to explicit legal pronouncements on the property rights to atmospheric moisture" (footnote omitted).

⁴⁵ See *infra* notes 255–259 and accompanying text.

⁴⁶ See *infra* notes 47–49 and accompanying text.

⁴⁷ To review how a "property rule" operates, see *supra* note 22 and accompanying text.

⁴⁸ The adverse possession doctrine is described and analyzed in detail below in Part III.A. See *infra* notes 138–148 and accompanying text.

⁴⁹ For a general description of pliability rules, see *supra* notes 28–30 and accompanying text.

⁵⁰ See *infra* notes 53–98 and accompanying text.

tlement-shifting rules that seem to enjoy broad acceptance,⁵¹ and Section D draws a distinction between “entitlements” and “property entitlements.”⁵²

A. Weighing Costs and Benefits

Entitlement-shifting rules can generate multiple types of costs and benefits, not all of which are obvious to the casual observer.⁵³ Fortunately, Professor Frank Michelman’s fifty-year-old cost-benefit structure for evaluating whether a confiscatory government action should trigger a compensable taking provides a useful starting point for designing an analytic framework for entitlement-shifting rules.⁵⁴ The three primary measures that comprise Michelman’s structure each also impact whether an entitlement-shifting rule or action is cost-justified.

Michelman’s framework first asks whether a proposed transfer of rights would generate positive “efficiency gains,” meaning that the recipient places a greater value on the rights than the party losing them.⁵⁵ If a proposed transfer of rights satisfies this test, Michelman’s structure then calls for a weighing of two other measures—“settlement costs” and “demoralization costs”—to inform the separate question of whether the payment of just compensation is warranted in connection with the transfer.⁵⁶ The following are brief descrip-

⁵¹ See *infra* notes 99–106 and accompanying text.

⁵² See *infra* notes 107–126 and accompanying text.

⁵³ See *infra* notes 58–79 and accompanying text.

⁵⁴ See Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of “Just Compensation” Law*, 80 HARV. L. REV. 1165, 1214–18 (1967).

⁵⁵ *Id.* at 1214. Although Michelman never used the more modern microeconomics term “allocative efficiency” in his article to describe what he called the “efficiency gains” from a potential transfer, his descriptions of these gains suggest that he was generally referring to allocative efficiency. See *id.* (defining “efficiency gains” as “the excess of benefits produced by a measure over losses inflicted by it, where benefits are measured by the total number of dollars which prospective gainers would be willing to pay to secure adoption, and losses are measured by the total number of dollars which prospective losers would insist on as the price of agreeing to adoption”); see also *id.* at 1214–15 (“A measure attended by positive efficiency gains is, under utilitarian ethics, *prima facie* desirable.”).

⁵⁶ *Id.* at 1214. Michelman argued that requiring compensation is cost-justified only when demoralization costs exceed settlement costs. See *id.* at 1215 (“The correct utilitarian statement . . . insofar as the issue of compensability is concerned, is that compensation is due whenever demoralization costs exceed settlement costs, and not otherwise.”). In addition to Michelman, other commentators have likewise suggested that courts should “uncouple” efficiency and justice considerations in the takings context, and consider the question of whether a taking has occurred separately from considering whether to order the payment of just compensation. See, e.g., Michael A. Heller & James E. Krier, *Commentary, Deterrence and Distribution in the Law of Takings*, 112 HARV. L. REV. 997, 997 (1999) (advocating that courts “uncouple efficiency considerations from justice considerations, or, put another way . . . uncouple ‘taking’ on the one hand from ‘compensation’ on the other”). Michael Heller and James Krier suggest that this approach would make it possible to order governments to pay compensation into a general fund rather than to specific individuals or to order non-government stakeholders to pay compensation. See *id.* at 1000.

tions of each of Michelman's three cost and benefit measures and their relevance when analyzing entitlement-shifting rules.⁵⁷

1. Allocative Efficiency Impacts

The most visible costs and benefits associated with entitlement-shifting rules are those accruing directly to the parties that gain or lose the shifted entitlement.⁵⁸ Although Michelman generically labeled the net sum of these costs and benefits as "efficiency gains," he seemed to be measuring whether the entitlement transfer at issue was an allocatively efficient or "Kaldor-Hicks superior" move for the parties directly involved.⁵⁹ A transfer passes this narrowly focused test if the welfare gains accruing directly to the receiver of the entitlement exceed the losses suffered by the party losing it.⁶⁰

Entitlement-shifting rules involve no compensation to losers,⁶¹ so applying such rules with positive-value entitlements always imposes welfare losses on losing parties and thus never constitutes a "Pareto superior" move—a move that makes at least one party better off without making any party worse off.⁶² Some shifts of entitlements, however, are not even Kaldor-Hicks superior. Because entitlement-shifting rules involve no compensation to losers, governments rarely internalize all of the costs of entitlement-shifting actions and may thus rationally opt to shift entitlements even in some instances in which doing

⁵⁷ See *infra* notes 58–79 and accompanying text.

⁵⁸ See *infra* notes 62–64 and accompanying text.

⁵⁹ See Michelman, *supra* note 54, at 1214 (defining "efficiency gains" as "the excess of benefits produced by a measure over losses inflicted by it"). The origins of the term "Kaldor-Hicks" efficiency date back more than eighty years. See generally J.R. Hicks, *The Foundations of Welfare Economics*, 49 *ECON. J.* 696 (1939); Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 *ECON. J.* 549 (1939).

⁶⁰ See Bruce Chapman, *The Rational and the Reasonable: Social Choice Theory and Adjudication*, 61 *U. CHI. L. REV.* 41, 114 (1994) ("Kaldor-Hicks efficiency . . . is what wealth-maximizing lawyer/economists appeal to when they recommend the allocation of a legal entitlement to that party who is willing to pay the most to receive it, or the party who could compensate all the losers for the loss of an entitlement and still be better off herself.").

⁶¹ See *supra* notes 30–31 and accompanying text.

⁶² See Jules L. Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 *HOFSTRA L. REV.* 509, 513 (1980) ("An allocation of resources is Pareto superior to an alternative allocation if and only if no one is made worse off by the distribution and the welfare of at least one person is improved."); see also JOSEPH E. STIGLETZ, *ECONOMICS OF THE PUBLIC SECTOR* 65 (4th ed. 2015) (referring to changes that make at least one party better off without making any party worse off as "Pareto improvements"). Of course, voluntary sales of entitlements and compensated transfers of entitlements pursuant to liability rules can be Pareto improvements. Bruce Chapman has alluded to this idea. See Chapman, *supra* note 60, at 114 ("[S]ince actual compensation need not be paid, Kaldor-Hicks-efficient reallocations of goods or entitlements are only *potentially* Pareto efficient; in actual fact, such allocations do produce losers.").

so reduces allocative efficiency.⁶³ Indeed, deterring inefficient confiscatory actions by compelling governments to internalize the costs of them has long been a chief economic argument in favor of the just compensation requirement under takings laws.⁶⁴ The absence of compensation under entitlement-shifting rules makes asking whether shifts under the proposed rule would increase allocative efficiency a critical first step in analyzing these rules. If shifts under the rule are likely to decrease allocative efficiency, the rule is not economically justifiable and cost-benefit analysis of the rule stops there.⁶⁵

2. Demoralization Costs

If a government-facilitated transfer of rights is likely to increase allocative efficiency between the immediate parties, Michelman's cost-benefit analysis then proceeds to a separate question of whether to require compensation in connection with it.⁶⁶ According to Michelman, requiring compensation is cost-justifiable whenever the demoralization costs from *not* requiring compensation would exceed the settlement costs from requiring compensation.⁶⁷

Michelman defined "demoralization costs" as:

[T]he total of (1) the dollar value necessary to offset disutilities which accrue to losers and their sympathizers specifically from the realization that no compensation is offered [in exchange for forfeited entitlements], and (2) the present capitalized dollar value of lost future production (reflecting either impaired incentives or social unrest) caused by demoralization of uncompensated losers, their sympathizers, and other observers disturbed by the thought that they

⁶³ See, e.g., Vicki Been & Joel C. Beauvais, *The Global Fifth Amendment? NAFTA's Investment Protections and the Misguided Quest for an International "Regulatory Takings" Doctrine*, 78 N.Y.U. L. REV. 30, 88 (2003) (referring to the "cost-internalization argument" as "a (if not the) major justification for requiring governments to compensate those whose property is rendered either unavailable or less valuable as a result of government action").

⁶⁴ See, e.g., RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 3.7, at 58 (4th ed. 1992) ("The simplest economic explanation for the requirement of just compensation is that it prevents the government from overusing the taking power."); Heller & Krier, *supra* note 56, at 999 ("If the government were free to take resources without paying for them, it would not feel incentives, created by the price system, to use those resources efficiently."); Thomas J. Miceli & Kathleen Segerson, *Regulatory Takings: When Should Compensation Be Paid?*, 23 J. LEGAL STUD. 749, 758 (1994) ("[I]f compensation is zero, the regulator perceives the regulation as being costless and will overregulate."). Michael Heller and James Krier characterized this same basic impact as a beneficial "deterrence" effect of the compensation requirement. Heller & Krier, *supra* note 56, at 999.

⁶⁵ See *supra* notes 59–60 and accompanying text.

⁶⁶ Michelman, *supra* note 54, at 1215.

⁶⁷ *Id.*

themselves may be subjected to similar treatment on some other occasion.⁶⁸

In the context of entitlement-shifting rules, demoralization costs are costs resulting from recognition by entitlement losers and all other observers that the government has shifted entitlements unilaterally and may do so again in the future.

Although the demoralization costs of entitlement-shifting rules can vary dramatically, a few general factors tend to influence the magnitude of these costs in any given case. For instance, demoralization costs are likely to be greater when the entitlements involved are core property interests or other interests that have long been viewed as sacrosanct and dependably protected under the law.⁶⁹ Multiple takings law principles seem implicitly aimed at limiting these types of demoralization costs. For instance, the famous rule in *Loretto v. Teleprompter Manhattan CATV Corp.*, which strongly protects landowners' rights to exclude on private land by making permanent physical occupations of land per se regulatory takings, arguably fits this description.⁷⁰ The *Penn Central Transportation Co. v. New York City* test's consideration of reasonable "investment-backed expectations" likewise helps to limit demoralization costs by providing some assurance that when a citizen has made significant recent investments in property based on existing law, courts will at least consider that reliance in their takings analysis.⁷¹

Demoralization costs are also likely to be greater when it is evident that influence from special interests has prompted a government entity to shift certain entitlements in favor of such interests and that the entity could easily do so again.⁷² Some existing takings law principles likewise seem aimed at reducing demoralization costs borne from these types of concerns. For example, as Justice O'Connor implied in her dissenting opinion in the notorious *Kelo v. City of New London* case, one supposed benefit of the Takings Clause's "public use"

⁶⁸ *Id.* at 1214 (footnote omitted).

⁶⁹ Some courts have highlighted the potential collateral consequences of allowing governments to freely take or destroy property interests without compensation. *See, e.g.*, *Cornel v. State Plant Bd.*, 95 So. 2d 1, 6 (Fla. 1957) ("[W]e hope we never become insensitive to the clear and indefeasible property rights of the people guaranteed by our state and federal organic law, nor forgetful of the principle of universal law that the right to own property is an indispensable attribute of any so-called 'free government' and that all other rights become worthless if the government possesses an untrammelled power over the property of its citizens.").

⁷⁰ 458 U.S. 419, 432–35 (1982).

⁷¹ *See* 438 U.S. 104, 124 (1978) ("The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are . . . relevant considerations.").

⁷² Such circumstances also raise objective procedural injustice concerns, as described below. *See infra* notes 95–98 and accompanying text.

requirement is that it limits governments' powers to shift property entitlements solely to cater to special interests—a constraint that, when functioning effectively, helps to reduce that type of demoralization cost.⁷³

3. Avoided Settlement Costs

“Settlement costs” are a third and final measure from Michelman’s takings compensation analysis framework that is also relevant when evaluating some types of entitlement-shifting rules.⁷⁴ Michelman defined settlement costs as “the dollar value of the time, effort, and resources which would be required in order to reach compensation settlements adequate to avoid demoralization costs.”⁷⁵ In short, settlement costs are costs associated with the measuring and paying of future compensation claims that result solely because of the precedent established by requiring compensation in the instant case.

The actual settlement costs incurred under applications of entitlement-shifting rules are always zero because, by definition, shifts occur only when no compensation is paid.⁷⁶ Laws and actions that shift core property-related entitlements, however, typically occur in the shadow of alternative rules or actions that could have instead required government compensation to entitlement losers.⁷⁷ In that sense, *avoided* settlement costs are implicit in any decision to apply an entitlement-shifting rule.

Like demoralization costs, avoided settlement costs under entitlement-shifting rules can vary widely. As a general principle, however, the size and quantity of similar future compensation claims that would arise if compensation were paid in the given instance tend to most greatly influence the magnitude of these costs. If requiring compensation in a particular instance is likely to lead to many large future compensation claims, the settlement costs avoided through use of an entitlement-shifting rule are much greater. For instance, a rule that sets an important precedent by requiring compensation to landowners

⁷³ See 545 U.S. 469, 503 (2005) (O’Connor, J., dissenting) (“The specter of condemnation hangs over all property. Nothing is to prevent the State from replacing any Motel 6 with a Ritz-Carlton, any home with a shopping mall, or any farm with a factory.”).

⁷⁴ Michelman, *supra* note 54, at 1214.

⁷⁵ *Id.* Michelman elaborated that settlement costs of a particular government action cover:

(a) the costs of bargaining to out-of-court settlements of . . . claims occasioned by [the] measure which seem indistinguishable from the claim recognized; (b) the added (marginal) cost of operating the judicial system to settle those of the indistinguishable claims not settled by agreement; and (c) the costs of disposition, whether by agreement or by judgment, of all claims arising out of other measures, which claims would never have been urged had not the claim in question been recognized

Id. at 1214 n.99.

⁷⁶ See *supra* notes 25–37 and accompanying text.

⁷⁷ See *infra* notes 254–294 and accompanying text.

for government-caused flooding on their land could implicate very large settlement costs if numerous similar cases are likely to arise in the coming years.⁷⁸ Conversely, an entitlement-shifting approach that instead required no compensation in such situations would avoid those high settlement costs but generate high demoralization costs.⁷⁹

B. Justice Considerations

In addition to generating costs and benefits, entitlement-shifting rules also can impact justice in ways that warrant consideration when evaluating these rules.⁸⁰ Justice-based arguments have long served alongside efficiency ones as primary rationales for the just compensation requirement in takings law, and such arguments can have comparable relevance when evaluating entitlement-shifting laws and actions.⁸¹ There is unfortunately no widely accepted method for measuring a given entitlement-shifting rule's justice impacts or for weighing those effects against economic impacts. Still, it is worthwhile to highlight at least three types of justice that are implicated by some entitlement-shifting rules: distributive justice, corrective justice, and procedural justice.⁸²

Because entitlement-shifting rules often indirectly redistribute wealth, they can potentially have considerable impacts on distributive justice. Distributive justice is typically defined as the fair or equitable distribution of assets and burdens among all members of society.⁸³ In their landmark article, Calabresi and Melamed specifically included "distributional preferences" alongside

⁷⁸ A discussion of a government entity's attempt to shift entitlements in the context of intentional flooding of land follows in Part IV below. See *infra* notes 238–252 and accompanying text.

⁷⁹ See *supra* notes 68–69 and accompanying text.

⁸⁰ See *infra* notes 81–98 and accompanying text.

⁸¹ Michelman is generally credited with introducing the basic efficiency and justice framework that commonly serves as a starting point for analyses of the Takings Clause's just compensation requirement. See, e.g., Vicki Been, *Does an International "Regulatory Takings" Doctrine Make Sense?*, 11 N.Y.U. ENV'T L.J. 49, 49–50 (2002) (discussing Michelman's "fairness" justification "for compensating those whose property diminishes in value as the result of regulatory actions"); Heller & Krier, *supra* note 56, at 998 ("[T]here appears to be virtual consensus that the purposes of just compensation are . . . [what] Frank Michelman calls . . . 'utility' and 'fairness' in an article that remains . . . the most significant piece of academic commentary on our subject." (citing Michelman, *supra* note 54, at 1165)).

⁸² Robert Kuehn helped to popularize analyses under these three types of justice and social justice within the environmental justice literature. See Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 ENV'T L. REP. 10,681, 10,681 (2000) (highlighting distributive justice, procedural justice, corrective justice, and social justice as the four predominant types of justice within the environmental justice movement).

⁸³ See, e.g., Kyle D. Logue, *Reparations as Redistribution*, 84 B.U. L. REV. 1319, 1342 (2004) (defining distributive justice generally as "the idea that scarce societal benefits and burdens ought to be distributed fairly across the members of society").

efficiency concerns as a relevant factor when initially assigning entitlements.⁸⁴ Their point seemed to be that, all else equal, initially assigning an entitlement to the party with less wealth promotes distributive justice.⁸⁵ In a similar vein, some scholars have argued that adjusting legal rules—which often shifts entitlements—is sometimes a justifiable means of advancing distributive justice goals.⁸⁶

Occasionally, advocates have championed certain types of entitlement-shifting rules primarily because of their potential distributional justice effects. Although many economists have argued that wealth redistribution objectives are better pursued through a progressive income tax system than through the rules of private law,⁸⁷ others have supported shifting entitlements instead—especially when initial allocations of entitlements have stacked the deck against certain disadvantaged groups.⁸⁸

Of course, distributive justice arguments can sometimes cut the other direction and weigh against a proposed entitlement-shifting rule if the rule is likely to regressively or unfairly redistribute wealth. For instance, distributive justice concerns might arise if a proposed law or government action appears

⁸⁴ See Calabresi & Melamed, *supra* note 1, at 1093 (citing “economic efficiency, distributional preferences, and other justice considerations” as the primary considerations when assigning entitlements).

⁸⁵ See generally *id.* at 1098–1101 (discussing the “distributional goals” of assigning entitlements).

⁸⁶ See Lee Anne Fennell & Richard H. McAdams, *The Distributive Deficit in Law and Economics*, 100 MINN. L. REV. 1051, 1056 (2016) (challenging the common presumption that tax-and-transfer approaches to wealth redistribution are always superior to approaches that involve adjustments to legal rules); Zachary Liscow, Note, *Reducing Inequality on the Cheap: When Legal Rule Design Should Incorporate Equity as Well as Efficiency*, 123 YALE L.J. 2478, 2478 (2014) (“This Note develops a framework for understanding when policymakers should use equity-informed legal rules—rather than taxes—to redistribute.”).

⁸⁷ Professors Louis Kaplow and Steven Shavell have been the most influential in popularizing arguments that the income tax system is often better suited than the legal system for redistributing wealth. See, e.g., Louis Kaplow & Steven Shavell, *Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income*, 29 J. LEGAL STUD. 821, 821 (2000) (“[W]e revisit our argument and others that favor relying on the income tax system to redistribute income”); Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient Than the Income Tax in Redistributing Income*, 23 J. LEGAL STUD. 667, 667 (1994) (“[R]edistribution through legal rules offers no advantage over redistribution through the income tax system and typically is less efficient.”). Other scholars have since emphasized the relatively wide acceptance of this concept in law and economics circles. See, e.g., Fennell & McAdams, *supra* note 86, at 1059 n.22 (“[M]ost law and economics scholars envision combining [wealth maximizing policies] with redistribution through the tax-and-transfer system to pursue the ultimate maximand of welfare.”).

⁸⁸ See, e.g., David Blankfein-Tabachnick & Kevin A. Kordana, *Kaplow and Shavell and the Priority of Income Taxation and Transfer*, 69 HASTINGS L.J. 1, 8 (2017). Blankfein-Tabachnick and Kordana assert that “Kaplow and Shavell’s conclusion that income taxation and transfer is most efficient has failed to properly take into account . . . underlying property rules, and . . . should be rejected.” *Id.* They aver that “maximal efficiency in meeting equity-oriented distributive aims will, at times, demand that such aims be met via non-tax and transfer legal rules, such as those of property and basic entitlement.” *Id.*

likely to shift entitlements from disadvantaged groups to privileged and politically powerful ones or to single out and place inordinate burdens on a small number of politically weak parties.⁸⁹ Such concerns are detectable in the copy-right extension, subsurface pore space, and drone regulation examples in Part IV below.⁹⁰

Certain other types of entitlement-shifting rules can potentially violate corrective justice ideals. The term “corrective justice” typically stands for the notion that defendants who act wrongfully or violate plaintiffs’ rights should be required to fully compensate them for all resulting harms.⁹¹ An important corollary to this principle, however, is that defendants should not be disproportionately punished.⁹² Laws that go too far in shifting entitlements away from wrongdoers as a way of punishing their unlawful behavior can arguably contravene corrective justice principles in this latter sense.⁹³ The civil asset forfeiture laws analyzed in Part III below are one example of a category of laws that potentially raises this type of corrective justice concern.⁹⁴

Some types of entitlement-shifting rules may even operate in ways that threaten procedural justice. Although procedural justice has been subject to multiple definitions and sub-definitions, a version that one pair of writers call “objective procedural justice” seems to best describe the type of procedural justice at issue in the context of entitlement-shifting rules.⁹⁵ Allan Lind and Tom Tyler defined objective procedural justice as “the capacity of a procedure . . . to make either the decisions themselves or the decision-making process more fair by, for example, reducing some clearly unacceptable bias or prejudice.”⁹⁶

⁸⁹ For a detailed examination of this “singling out” concept, which is visibly emphasized in modern regulatory takings jurisprudence, see Michael Pappas, *Singled Out*, 76 MD. L. REV. 122 (2016).

⁹⁰ See *infra* notes 260–294 and accompanying text.

⁹¹ See Kenneth W. Simons, *Corrective Justice and Liability for Risk-Creation: A Comment*, 38 UCLA L. REV. 113, 125–26 (1990) (“Corrective justice most commonly is defined as the defendant’s obligation to compensate for harm that she has caused wrongfully or in violation of the plaintiff’s rights.”).

⁹² See Thomas T. Uhl, *Bystander Emotional Distress: Missing an Opportunity to Strengthen the Ties That Bind*, 61 BROOK. L. REV. 1399, 1448 (1995) (noting that “[c]orrective justice suggests a limit on liability because it insists upon fairness for both plaintiff and defendant” and thus precludes laws from “impos[ing] disproportionate liability” on defendants).

⁹³ In particular, this argument might arise in situations in which those charged with crimes are forced to forfeit privately held assets having economic value that far exceeds the magnitude of harms caused by their unlawful acts. See Kevin Cole, Essay, *Civilizing Civil Forfeiture*, 7 J. CONTEMP. LEGAL ISSUES 249, 257 (1996) (“[S]ome theories of corrective justice limit civil obligations to the repair of actual harm.”).

⁹⁴ See *infra* notes 152–175 and accompanying text.

⁹⁵ E. ALLAN LIND & TOM R. TYLER, *THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE* 3 (1988).

⁹⁶ *Id.*

An entitlement-shifting rule arguably violates objective procedural justice ideals when it appears that special interests have undermined the impartiality of the political process and persuaded government actors to shift entitlements in their favor. A commonly cited benefit of the Takings Clause’s just compensation requirement is that it helps to deter abuses of government power that transfer entitlements to politically powerful groups.⁹⁷ As highlighted in Part IV below, because entitlement-shifting rules inherently involve no payment of just compensation under the Takings Clause, they can be powerful political rent-seeking tools in ways that contravene this important species of procedural justice.⁹⁸

C. Innocuous Types of Entitlement Shifting

Although entitlement-shifting rules and actions inherently involve some costs and can threaten justice ideals, many types of entitlement shifting are clearly cost-justifiable and are widely accepted.⁹⁹ Indeed, if the term “entitlement” is construed broadly to encompass a wide and inclusive range of legal rights and privileges, entitlement-shifting rules are visible throughout Western democratic systems.¹⁰⁰ Legislative, regulatory, and even judicial actions routinely shift legal entitlements among citizens and governments in various ways over time without imposing substantial new social costs.

Legislative actions regularly shift generic legal entitlements in an effort to better reflect the ever-changing collective will of the citizenry. For example, a statute enacted in Indiana in 2019 expressly allows individuals in the state to carry guns into churches, including churches that have schools or day care fa-

⁹⁷ See, e.g., Abraham Bell & Gideon Parchomovsky, *Taking Compensation Private*, 59 STAN. L. REV. 871, 872 (2007) (“‘[J]ust compensation’ remains the only meaningful safeguard of private property rights and the only check on government abuse of its eminent domain power.”); Daryl J. Levinson, *Framing Transactions in Constitutional Law*, 111 YALE L.J. 1311, 1384 (2002) (stating that the just compensation requirement “discourag[es] interest-group rent-seeking . . . by preventing government[s] from continuously readjusting property entitlements” (citing CASS R. SUNSTEIN, FREE MARKETS AND SOCIAL JUSTICE 207–11 (1997)) (other citation omitted)).

⁹⁸ See *infra* notes 211–294 and accompanying text. For an explanation of rent-seeking, see *infra* note 255 and accompanying text. Examples of attempts to use entitlement-seeking rules as rent-seeking tools also appear in Part III below. See *infra* notes 255–259 and accompanying text.

⁹⁹ See *infra* notes 100–106 and accompanying text.

¹⁰⁰ Multiple scholars have applied this type of broad interpretation of “entitlement.” See, e.g., Andrew Blair-Stanek, *Crises and Tax*, 67 DUKE L.J. 1155, 1165 (2018) (suggesting that property rules and liability rules within tax law “protect the government’s entitlement to taxpayer compliance with numerous requirements”); Eugene Kontorovich, *Liability Rules for Constitutional Rights: The Case of Mass Detentions*, 56 STAN. L. REV. 755, 763 (2004) (arguing that “[a]lmost all individual constitutional rights are negative entitlements” within the Cathedral model framework and that “[m]ost entitlements held by the government are positive, such as the right to regulate commerce, to tax, or to call out the militia”).

cilities on the premises.¹⁰¹ Prior to the law's enactment, church owners effectively held an entitlement to keep guns out of their buildings: it was a felony to carry a handgun onto a church property without permission if there was also a school or day care onsite.¹⁰² The 2019 statute shifted that entitlement from the state and church owners to any church visitor in Indiana interested in toting a gun. Comparable entitlement shifting occurs throughout the country every year as newly enacted statutes go into effect.

Courts likewise take legitimate actions that shift valuable legal entitlements from time to time. The doctrine of *stare decisis* constrains the ability of courts to shift legal entitlements by limiting their authority to reach holdings that contradict established prior precedents.¹⁰³ Nevertheless, courts still occasionally overturn existing precedent in ways that effectively shift entitlements.¹⁰⁴ The fact that courts have some leeway to deviate from prior precedent is generally accepted as a positive virtue of the judicial system that enhances the capacity of caselaw to evolve and adapt to circumstantial changes over time.¹⁰⁵ Constitutional constraints on the ability of courts to reverse exist-

¹⁰¹ H.B. 1284, 121st Gen. Assemb., Reg. Sess. (Ind. 2019).

¹⁰² See IND. CODE § 35-47-9-2 (2017) (making it a felony to possess a firearm on school property); see also IND. CODE § 35-31.5-2-285 (2018) (defining "school property" to include "grounds adjacent to and owned or rented in common with a building or other structure" that constitutes a school property). News reports at the time the bill was enacted emphasized the changed law. See, e.g., Brett Kast, *Churches Look to Set Up Security Teams After Indiana Law Changes to Allow Guns in Church*, YOUR NEWS NOW (Dec. 31, 2019), <https://cbs4indy.com/news/churches-look-to-set-up-security-teams-after-indiana-law-changes-to-allow-guns-in-church/> [<https://perma.cc/8BVM-6MFG>].

¹⁰³ See *Stare Decisis*, BLACK'S LAW DICTIONARY (11th ed. 2019) (defining *stare decisis* as "[t]he doctrine of precedent, under which a court must follow earlier judicial decisions when the same points arise again in litigation"). On multiple occasions, the Supreme Court has affirmed the importance of the doctrine. See, e.g., *Payne v. Tennessee*, 501 U.S. 808, 842 (1991) ("[O]verruling a precedent of this Court is a matter of no small import . . ."); *Welch v. Tex. Dep't of Highways & Pub. Transp.*, 483 U.S. 468, 494 (1987) ("[T]he doctrine of *stare decisis* is of fundamental importance to the rule of law.").

¹⁰⁴ For example, in its 2019 holding in *Franchise Tax Board v. Hyatt*, 139 S. Ct. 1485 (2019), the Supreme Court, overturning its own forty-year-old precedent, arguably shifted to private claimants certain valuable entitlements related to commencing a lawsuit against one state in the court of a different state. See Anita Krishnakumar, *Academic Highlight: Hyatt Is Latest Example of Textualist-Originalist Justices' Willingness to Overturn Precedent*, SCOTUSBLOG (May 24, 2019), <https://www.scotusblog.com/2019/05/academic-highlight-hyatt-is-latest-example-of-textualist-originalist-justices-willingness-to-overturn-precedent/> [<https://perma.cc/BU5Z-P9FR>] ("The U.S. Supreme Court's decision in [*Hyatt*] has received significant attention for its overruling of *Nevada v. Hall*, a 40-year-old precedent that held that states lack sovereign immunity in each other's courts."); see also Ashlea Ebeling, *Supreme Court Shows It's Ready to Overrule Precedent, Dissent Sounds Alarm in California v. Hyatt*, FORBES (May 13, 2019), <https://www.forbes.com/sites/ashleaebeling/2019/05/13/supreme-court-shows-its-ready-to-overrule-precedent-dissent-sounds-alarm-in-california-v-hyatt/?sh=d5f0c4ccbaba> [<https://perma.cc/HYA5-HLRH>].

¹⁰⁵ See Rebecca Haw, *Delay and Its Benefits for Judicial Rulemaking Under Scientific Uncertainty*, 55 B.C. L. REV. 331, 355 (2014) ("[A] significant change in circumstance that renders a rule obviously wrong or inefficient can justify its revision."). The Supreme Court itself has emphasized the

ing precedent and the general rarity of major reversals help to minimize the demoralization costs associated with this judicial practice. So long as courts do not overturn established precedents too frequently, abruptly, or dramatically, the modest additional legal uncertainty generated from allowing such entitlement shifting seldom causes substantial harm.¹⁰⁶

D. “Entitlements” Versus “Property Entitlements”

On the other hand, some types of entitlement-shifting rules are rarely efficient or just.¹⁰⁷ In particular, laws and government actions that shift core property-related entitlements have a greater tendency to generate high demoralization costs and to contravene widely held justice ideals. In many cases, adding compensation requirements to convert these rules into liability rules or pliability rules could potentially make them more just and more efficient.

For simplicity, this Article uses “property entitlement” as a shorthand term to describe any entitlement that authorizes its holder to exclude all others from a particular asset. Based on this definition, governments shift property entitlements whenever they authorize themselves or third parties to intrude upon or otherwise make possessory use of private property without permission or compensation. Assuming that the initial entitlement holder is the “plaintiff,” most entitlement-shifting rules involving property entitlements result in movements across the dashed horizontal axis from Rule One to Rule Three in Figure A above.¹⁰⁸ Because the term “property entitlement” appears extensively throughout the analysis that follows, a bit more explanation for its narrow definition in this Article is warranted here.

Recognizing property’s unique role in fostering economic stability, governments have long sought to vigorously protect property, even as they have struggled to define it. Early influential figures, such as John Locke, often emphasized that citizens’ property rights, together with life and liberty, deserved

significant value of having the flexibility to overturn old precedent occasionally in response to changes over time. *See, e.g.,* *Planned Parenthood v. Casey*, 505 U.S. 833, 854–55 (1992) (stating that “*stare decisis* is not an ‘inexorable command,’” and declaring that, “when this Court reexamines a prior holding, its judgment is customarily informed by a series of prudential and pragmatic considerations,” including “whether facts have so changed, or come to be seen so differently, as to have robbed the old rule of significant application or justification” (citation omitted)), *aff’g in part, rev’g in part* 947 F.2d 682 (3d Cir. 1991).

¹⁰⁶ Courts are generally obligated to consider such potential harms when deciding whether to overturn existing precedent. *See Planned Parenthood*, 505 U.S. at 854 (noting that courts generally consider, among other things, “whether the rule is subject to a kind of reliance that would lend a special hardship to the consequences of overruling and add inequity to the cost of repudiation” (citing *United States v. Title Ins. & Tr. Co.*, 265 U.S. 472, 486 (1924))).

¹⁰⁷ *See supra* notes 89–98 and accompanying text.

¹⁰⁸ *See supra* notes 30–31 and accompanying text. Of course, if the initial entitlement holder is the defendant, most entitlement-shifting rules instead move from Rule Three to Rule One.

heightened governmental protection.¹⁰⁹ Accordingly, strong safeguards for property rights appear in the Due Process¹¹⁰ and Takings Clauses of the U.S. Constitution.¹¹¹ Nonetheless, legislatures, courts, and legal scholars have never fully coalesced around a single conception of property.¹¹² First-year law students typically encounter at least two competing definitions of property: the Blackstonian view of property as a right to exclude and the more flexible characterization of property as a bundle of sticks or rights.¹¹³ Meanwhile, courts have seemingly constructed their own diverse set of rules about what may constitute a cognizable property right in various legal contexts, often applying different interpretations of the term depending on whether they are considering a takings claim, a due process claim, or a claim under common property law.¹¹⁴

“Property” is often broadly described as authority to engage in certain actions related to a specific asset,¹¹⁵ with corresponding duties in others to observe and respect that authority.¹¹⁶ Over the years, property scholars have la-

¹⁰⁹ John Locke regarded life, liberty, and property as fundamental natural rights. JOHN LOCKE, *THE SECOND TREATISE OF GOVERNMENT*, reprinted in *THE SELECTED POLITICAL WRITINGS OF JOHN LOCKE* (Paul E. Sigmund ed., Norton 2005) (1689). Thomas Jefferson ultimately substituted “the pursuit of happiness” for “property” when drafting the Declaration of Independence. *THE DECLARATION OF INDEPENDENCE* para. 2 (U.S. 1776); see also Jeffrey C. Sindelar, Jr., *Of Form and Function: Lockean Political Philosophy and Mass Tort*, 90 NEB. L. REV. 887, 904 (2012) (discussing John Locke’s “tremendous influence on the political philosophy of America’s Founding Fathers”).

¹¹⁰ U.S. CONST. amends. V, XIV (providing that no citizen shall “be deprived of life, liberty, or property, without due process of law”).

¹¹¹ *Id.* amend. V (“[N]or shall private property be taken for public use, without just compensation.”).

¹¹² Other observers have highlighted the great variety of academic perspectives concerning the nature of property. See, e.g., J.E. Penner, *The “Bundle of Rights” Picture of Property*, 43 UCLA L. REV. 711, 800–01 (1996) (“Property has been variously regarded as all distributable resources, as alienable entitlements, as an incentive to invest, as a source of personhood, as economic power, as status, as a share in society’s wealth, as a reward for effort and talent, as an incentive to labor, as a ground for inculcating responsibility, as an expression of the free will, and I am sure, others as well.”).

¹¹³ See, e.g., THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES AND POLICIES* 16–17 (3d ed. 2017) (contrasting William Blackstone’s essentialist view of property as the right to exclude, with the conception of property as a “bundle of sticks”).

¹¹⁴ Professor Thomas Merrill has suggested that courts seem to implicitly embrace a series of “patterning definitions” for property in constitutional law cases, employing one of three different applications depending on the type of legal claim at issue. See Thomas W. Merrill, *The Landscape of Constitutional Property*, 86 VA. L. REV. 885, 954–59 (2000) (“[I]t is desirable to have three separate patterning definitions of constitutional property, one each for procedural due process, takings law, and substantive due process.”).

¹¹⁵ See Edella Schlager & Elinor Ostrom, *Property-Rights Regimes and Natural Resources: A Conceptual Analysis*, 68 LAND ECON. 249, 250 (1992) (defining a “property right” as “the authority to undertake particular actions related to a specific domain” (citing JOHN COMMONS, *LEGAL FOUNDATIONS OF CAPITALISM* (Univ. of Wis. Press 1968))).

¹¹⁶ The notion of an inherent relationship between property rights and the commensurate duties of others to honor those rights is generally attributed to Wesley Hohfeld. See Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L.J. 16, 32 (1913)

beled several types of asset-related authority beyond exclusion rights as property rights, including rights to access or possess an asset, to manage its use, to claim any accessions or products of it, or to sell or lease it to others.¹¹⁷ Several legal realists have championed this liberal view of property,¹¹⁸ arguing that exclusion rights are merely one among many sticks or “rights” incident to property ownership.¹¹⁹ Even Ronald Coase seemed to generally embrace a “bundle of rights” conception of property.¹²⁰

One concerning implication of a liberal “bundle of rights” view of property, however, is its suggestion that an asset owner can lose even exclusion rights in an asset without deserving anything in return for that loss.¹²¹ Such a view is also arguably inconsistent with the prevailing notion that property entitlements are inherently *in rem* rights, meaning that—with some limited exceptions—

(noting that “[d]uty’ and ‘right’ are correlative terms” such that, “if X has a right against Y that he shall stay off the former’s land, the correlative (and equivalent) is that Y is under a duty toward X to stay off the place”). In short, property owners do not hold rights against things; instead, they hold rights against others in relation to things.

¹¹⁷ See, e.g., Schlager & Ostrom, *supra* note 115, at 250–51 (identifying rights of access, withdrawal, management, exclusion, and alienation as types of “property rights”). Schlager and Ostrom have suggested, among other things, that rights of alienation were “crucial for the efficient use of resources” and that “[a]lienation rights, combined with rights of exclusion, produce incentives for owners to undertake long-term investments in a resource.” *Id.* at 256. Others, including Thomas Merrill, have suggested that alienation rights are non-essential to property. See, e.g., Thomas W. Merrill, *The Property Strategy*, 160 U. PA. L. REV. 2061, 2079 (2012) (“I do not believe that alienation is essential to property strategy. When the property strategy is supported by social norms . . . there is typically no right of alienation.”).

¹¹⁸ For a thorough examination and rigorous critique of the analogy of property to a bundle of sticks, see Penner, *supra* note 112. In Penner’s words, the “prevalence” of the bundle of rights paradigm throughout U.S. property law is “undeniable.” *Id.* at 713. Property law scholars have been using the “bundle of sticks” analogy for well over a century. See, e.g., BENJAMIN N. CARDOZO, *THE PARADOXES OF LEGAL SCIENCE* 129 (1928) (using the phrase “bundle of power and privileges”); JOHN LEWIS, *A TREATISE ON THE LAW OF EMINENT DOMAIN IN THE UNITED STATES* 43 (1888) (using the phrase “bundle of rights”).

¹¹⁹ Penner, *supra* note 112, at 719 (“[T]he concept of property is often said to refer to a ‘bundle of rights’ that may be exercised with respect to that object—principally the rights to possess the property, to use the property, to exclude others from the property, and to dispose of the property by sale or by gift” (citing *Moore v. Regents of Univ. of Cal.*, 793 P.2d 479, 509 (Cal. 1990) (en banc))).

¹²⁰ See Thomas W. Merrill & Henry E. Smith, *Making Coasean Property More Coasean*, 54 J.L. & ECON. S77, S82–S83 (2011) (describing Coase’s apparent subscription to legal realists’ “bundle of rights” view of property).

¹²¹ See, e.g., *People v. Walker*, 90 P.2d 854, 855 (Cal. Dist. Ct. App. 1939) (“Since property or title is a complex bundle of rights, duties, powers and immunities, the pruning away of some or a great many of these elements does not entirely destroy the title”). Legal realists have long favored the “bundle of sticks” view of property because of its potential to provide greater flexibility to reallocate property interests to advance various public policy goals. See Merrill & Smith, *supra* note 120, at S81–S82 (asserting that legal realists favor the bundle of sticks view of property because of its capacity to “facilitate more extensive collective control over property, especially through programs of redistribution”).

they are intended to be enforceable against all others.¹²² Although rights to manage how an asset is used and to capture increases in its value over time often accompany exclusion authority under more comprehensive conceptions of property ownership,¹²³ such additional asset-related entitlements seldom have much value to a holder who lacks broad exclusion authority.¹²⁴ Relatively high demoralization costs thus often result when a law or government action shifts exclusion rights.

In short, although the question of what constitutes property under modern law is far from settled, most courts and commentators seem to agree that, at a minimum, property inherently involves *in rem* rights to exclude.¹²⁵ And because

¹²² See Merrill & Smith, *supra* note 120, at S81 (describing *in rem* property rights as rights that create “duties of noninterference in all persons”). The notion that exclusion rights are an essential characteristic of property is also consistent with several of property law’s most unbending doctrines. For instance, under conventional trespass doctrine, unauthorized physical intruders are strictly liable even if their intrusions cause no measurable injury to the landowner. See JOSEPH WILLIAM SINGER, PROPERTY 30 (5th ed. 2017) (noting that nominal damages are typically available for trespass “without proof of harm to the property” and that, “because actual compensatory damages are often low to nominal, courts may award *punitive* damages as a means to deter trespasses from occurring”).

¹²³ Thomas Merrill’s characterizations of property go beyond mere exclusion rights to encompass these inherently commensurate rights. Merrill describes these additional elements of property ownership as “residual managerial authority” and “residual accessory rights.” Merrill, *supra* note 117, at 2068. Residual accessory rights also include the right to claim any new resources emerging from an asset over time. *Id.* at 2068–70. On the other hand, as Merrill has noted, even property “pluralists,” who embrace a much more flexible conception of property, “agree that exclusion is an ever-present element in identifying something as property.” *Id.* at 2067 (citing HANOCH DAGAN, PROPERTY: VALUES AND INSTITUTIONS 37 (2011)).

¹²⁴ Concededly, the corollary of this statement is also arguably true: rights to exclude tend not to be particularly valuable without the ancillary rights that are typically commensurate with them. See *id.* at 2068 (referring to residual management authority and residual accessory authority, and noting that “[t]he right to exclude is critical not for its own sake, but because it yields these two further attributes”). There are also surely a few types of situations in which a right other than exclusion is most highly valued. See, e.g., Kristen A. Carpenter et al., *In Defense of Property*, 118 YALE L.J. 1022, 1080 (2009) (arguing that, in the case of cultural property, stewardship or governance rights are sometimes even more valuable and essential than exclusion rights).

¹²⁵ The most famous characterization of rights to exclude as the essence of property is William Blackstone’s centuries-old description of property as that “sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.” 2 WILLIAM BLACKSTONE, COMMENTARIES *2. Modern property law scholars seem to at least generally agree that exclusion rights are a critical attribute of property. See, e.g., Merrill, *supra* note 114, at 971–72 (declaring that “[t]he consensus view of scholars” is “that the right to exclude is an essential feature of common-law property,” and calling rights to exclude an “invariant attribute of all common-law property”). The Supreme Court has likewise repeatedly affirmed the notion that the right to exclude is a vital aspect of property in takings cases over the years. See *id.* at 973 (“The Court in previous takings cases has repeatedly described the right to exclude others as ‘one of the most essential’ rights of property, ‘one of the most treasured’ rights, or something ‘universally held to be a fundamental element of the property right.’” (first citing *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994); then citing *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982); and then citing *Kaiser Aetna v. United States*, 444 U.S. 164, 179–80 (1979))).

laws that shift these unique, *in rem* exclusion entitlements tend to generate elevated demoralization costs, it is worthwhile to more closely examine them.¹²⁶

III. LAWS THAT SHIFT ONE PROPERTY ENTITLEMENT AT A TIME

Having defined entitlement-shifting rules and outlined some basic principles and approaches for analyzing them, this Article now turns its focus to some specific examples.¹²⁷ As highlighted above, shifts of property entitlements—as opposed to shifts involving more generic legal entitlements—often entail additional demoralization costs and thus often warrant additional scrutiny.¹²⁸ Accordingly, all of the examples in this Part are of rules and actions that shift a single property entitlement. Part IV below then examines rules and actions that shift numerous property entitlements all at once.

All else equal, laws that shift a single property entitlement tend to generate lower demoralization costs than those that shift many entitlements in one fell swoop. Indeed, some such single-entitlement-shifting laws are valuable tools for promoting more optimal long-term uses of scarce resources. By contrast, some other examples of these laws single out and disproportionately burden citizens in unjust and inefficient ways that nonetheless escape the reach of existing takings laws. Section A of this Part highlights two types of entitlement-shifting rules that arguably effectuate shifts in title itself—adverse possession doctrine and certain civil asset forfeiture laws.¹²⁹ Section B focuses on entitlement-shifting rules that seem to effectually terminate title to certain property under prescribed circumstances.¹³⁰ Section C then describes a couple types of entitlement-shifting rules that shift something less than full title.¹³¹

A. Title-Shifting Rules

The most straightforward property entitlement-shifting rules are those that effectuate shifts in title itself.¹³² Although Bell and Parchomovsky referred to these powerful rules as “title-shifting pliability rules,”¹³³ for the reasons specified above, this Article simply refers to such rules as “title-shifting rules.”¹³⁴

¹²⁶ See *infra* notes 127–210 and accompanying text.

¹²⁷ See *infra* notes 132–210 and accompanying text.

¹²⁸ See *supra* notes 63–73 and accompanying text.

¹²⁹ See *infra* notes 132–171 and accompanying text.

¹³⁰ See *infra* notes 172–193 and accompanying text.

¹³¹ See *infra* notes 194–210 and accompanying text.

¹³² See *infra* notes 137–171 and accompanying text.

¹³³ See Bell & Parchomovsky, *supra* note 4, at 54 (describing “title shifting pliability rules” as rules “under which a preset condition triggers the transfer of property rule protection from one entitlement holder to another”).

¹³⁴ See *supra* notes 32–33 and accompanying text.

The following are descriptions and analyses of two real-world examples of this type of rule. Subsection 1 discusses adverse possession.¹³⁵ Subsection 2 discusses civil asset forfeiture laws.¹³⁶

1. Adverse Possession

The common law's adverse possession doctrine is a prototypical example of a title-shifting rule.¹³⁷ Adverse possession laws originated out of claims for ejectment against unauthorized occupiers of land.¹³⁸ When an adverse possession claim is successful, the original owner's title to the affected property is extinguished and new title is simultaneously recognized in a totally new and different party.¹³⁹ In most jurisdictions, adverse possessors are not required to compensate original owners in connection with this involuntary transfer of title, so successful claims result in shifts of property entitlements.

Adverse possession laws can arguably serve some valuable policy functions. The threat of losing title under these laws may encourage landowners to more vigilantly monitor their property and continue putting it to valuable use over time.¹⁴⁰ These doctrines may also incentivize non-property holders to keep an eye out for ignored property assets and to take actions that ultimately help put ignored property back into productive use.¹⁴¹

At the same time, adverse possession laws can be notoriously rigid and unforgiving. These laws reward extended trespassing or squatting, especially in the many jurisdictions where establishing adverse possession requires no

¹³⁵ See *infra* notes 137–150 and accompanying text.

¹³⁶ See *infra* notes 151–171 and accompanying text.

¹³⁷ See *infra* note 139 and accompanying text.

¹³⁸ When an individual squats on land belonging to someone else for a long period of time, eventually the statute of limitations for the true owner to bring an ejectment claim expires, and the squatter effectively takes title. See MERRILL & SMITH, *supra* note 113, at 170 (“The doctrine of adverse possession evolved from judicial decisions resolving disputes over the application of the statute of limitations for recovery of possession of property.”).

¹³⁹ See SINGER, *supra* note 122, at 295 (stating that adverse possession is established when there is “(1) actual possession that is (2) open and notorious, (3) exclusive, (4) continuous, and (5) adverse or hostile (6) for the statutory period”). Although adverse possession doctrine technically involves an extinguishment of title in the original owner, successful adverse possession claims are classified in this Article as title-shifting rules rather than title-terminating rules because the extinguished title always simultaneously vests in an identifiable new party.

¹⁴⁰ See Bell & Parchomovsky, *supra* note 4, at 66 (stating that the adverse possession doctrine “deters careless behavior on the part of property owners by subjecting careless owners to the risk of title loss”).

¹⁴¹ See *id.* at 69 (noting that adverse possession doctrine “is designed to discourage underutilization of the property as well as to reward adverse possessors for bringing property back into active use”).

showing of good faith.¹⁴² And immediately upon the expiration of the applicable statute of limitations, a successful adverse possessor instantaneously transitions from having no legal rights in the affected parcel to having a valid claim for fee simple title.¹⁴³

The relatively low demoralization costs associated with adverse possession laws may help to explain why they have subsisted in the common law for so long. Claimants must prove a strict and detailed set of elements to prevail under adverse possession claims, which helps to ensure that successful claims are rare and difficult to achieve.¹⁴⁴ Because it is usually easy, with just a little bit of vigilance, for property owners to avoid losing assets by adverse possession, few citizens have good reasons to fret about the prospect of it.¹⁴⁵ Moreover, most owners who allow others to continuously and openly possess their assets for several years are thereby signaling that they place a relatively low value on them and thus tend to suffer only modestly from losing ownership rights under the doctrine.

On the other hand, the settlement costs avoided by applying versions of adverse possession doctrine that require no compensation to original owners are also quite low, suggesting that amending such laws to require claimants to compensate original owners would likely improve their overall efficiency. Compensation requirements would surely introduce some new costs, but those costs would likely be offset by the demoralization cost reductions that would also result from requiring compensation.¹⁴⁶

Requiring successful adverse possessors to compensate original owners before taking title effectively converts adverse possession laws from title-

¹⁴² This type of squatting most recently drew attention as numerous squatters moved into foreclosed homes in the wake of the 2008 mortgage crisis. *See generally* Kristine S. Cherek, *From Trespasser to Homeowner: The Case Against Adverse Possession in the Post-crash World*, 20 VA. J. SOC. POL'Y & L. 271, 271 (2012) ("This Article examines the doctrine of adverse possession as it may be used, and as it is currently being used, with respect to residential properties that stand vacant as a result of foreclosure actions.").

¹⁴³ *See* Bell & Parchomovsky, *supra* note 4, at 55 n.89.

¹⁴⁴ *See supra* note 139 and accompanying text.

¹⁴⁵ Concededly, misunderstandings about the adverse possession doctrine may lead some citizens to engage in paranoid behavior to avoid having it applied to them. *See, e.g.*, *Jacque v. Steenberg Homes*, 563 N.W.2d 154, 157 (Wis. 1997) (noting that the plaintiff landowners were "sensitive about allowing others on their land because they had lost property valued at over \$10,000 to other neighbors in an adverse possession action" years earlier).

¹⁴⁶ *See* MERRILL & SMITH, *supra* note 113, at 1014–15 (identifying several potential issues that would arise if liability rules applied to adverse possession, including what to do if the true owner cannot be located, when to value the property for purposes of setting compensation, and whether to require compensation in all adverse possessions or only in those instances involving bad faith (citing Thomas W. Merrill, *Property Rules, Liability Rules, and Adverse Possession*, 79 NW. U. L. REV. 1122 (1985))).

shifting rules into classic pliability rules.¹⁴⁷ Unfortunately, although commentators have advocated for, or highlighted the possibility of, adding compensation requirements to adverse possession laws for decades, they appear to have persuaded very few courts or legislatures.¹⁴⁸ Lawmakers in at least one state have embraced this pliability rule approach: a Colorado statute specifically authorizes courts to require adverse possessors to pay compensation as a condition of taking title.¹⁴⁹ As of 2020, however, no other states had followed suit, so adverse possession laws applicable in most of the country continue to shift property entitlements.¹⁵⁰

2. Civil Asset Forfeiture Laws

Some civil asset forfeiture laws also function as title-shifting rules, and these laws have stirred considerably more controversy than adverse possession laws in recent years.¹⁵¹ Civil asset forfeiture laws generally authorize law enforcement agencies to claim ownership of private assets that were derived from or used to commit crimes. For example, under the federal Controlled Substances Act, if a citizen uses an automobile to deliver illicit drugs, a government agency may be authorized to seize the car and ultimately take title to it.¹⁵² Governments usually sell such forfeited assets and use at least some of the proceeds of those sales to supplement their operating budgets.¹⁵³

¹⁴⁷ Bell and Parchomovsky expressly mention the use of classic pliability rules as one possible means of improving upon the adverse possession doctrine's existing rigid rule. See Bell & Parchomovsky, *supra* note 4, at 70 ("States unsympathetic to adverse possession . . . may also employ a classic pliability rule in this context . . .").

¹⁴⁸ See, e.g., *id.* at 70–71 (noting the possibility of a rule that provides merely a call option to acquire land after establishing adverse possession, or a rule that requires the auctioned sale of adversely possessed land and the splitting of the auction proceeds between the adverse possessor and the original owner); Noel Elfant, Comment, *Compensation for the Involuntary Transfer of Property Between Private Parties: Application of a Liability Rule to the Law of Adverse Possession*, 79 NW. U. L. REV. 758, 761–62 (1984) ("[I]n all cases of adverse possession, the right that vests in the adverse possessor should be a right to purchase the property interest in question from the original owner for a judicially determined compensation equal to the market value of the property interest at the time the right to purchase vested in the adverse possessor.").

¹⁴⁹ See COLO. REV. STAT. ANN. § 38-41-101(5)(a) (West 2021) (authorizing Colorado courts to award compensation in successful adverse possession cases "if the court determines in its discretion that an award of compensation is fair and equitable under the circumstances").

¹⁵⁰ See, e.g., CAL. CIV. PROC. CODE § 325 (West 2011) (establishing adverse possession requirements in California); TEX. CIV. PRAC. & REM. CODE ANN. §§ 16.021–.030 (West 1985) (establishing adverse possession requirements in Texas).

¹⁵¹ See *infra* note 156 and accompanying text.

¹⁵² Caleb Nelson, *The Constitutionality of Civil Forfeiture*, 125 YALE L.J. 2446, 2448 (2016) (citing 21 U.S.C. § 881(a)(4), (h)).

¹⁵³ For instance, in February 2019, President Trump announced his administration's intention to use six hundred million dollars from the Treasury Department's civil asset forfeiture fund to help pay for portions of a border wall between the United States and Mexico. See Alan Neuhouser, *Trump Taps*

Civil asset forfeiture laws typically do not violate the Takings Clause, even though they arguably authorize governments to “take” privately held assets and to eventually put those assets to “public use” by using sale proceeds to help fund government operations.¹⁵⁴ The inapplicability of takings doctrine to these forfeitures makes sense because inserting a just compensation requirement into them would undermine their core purposes of deterring and punishing criminal activity.¹⁵⁵ On the other hand, asset forfeiture laws that allow agencies to go too far in unilaterally taking title to private assets as a form of punishment can potentially operate as costly title-shifting rules.

Civil asset forfeiture laws have recently drawn increased scrutiny in and out of courts for facilitating the redistribution of millions of dollars in valuable assets from private citizens to government agencies.¹⁵⁶ Much of this criticism of civil forfeiture laws has centered on arguments that there are inadequate legal safeguards in place to prevent government agencies from abusing them.¹⁵⁷ Because civil and administrative forfeitures are *in rem* actions, governments often must satisfy only a lesser “preponderance of the evidence” standard to prevail on forfeiture claims and thus sometimes do so even when

Civil Asset Forfeiture to Fund Border Wall, U.S. NEWS (Feb. 15, 2019), <https://www.usnews.com/news/national-news/articles/2019-02-15/trump-taps-civil-asset-forfeiture-to-fund-border-wall> [<https://web.archive.org/web/20201113051453/https://www.usnews.com/news/national-news/articles/2019-02-15/trump-taps-civil-asset-forfeiture-to-fund-border-wall>].

¹⁵⁴ See *Bennis v. Michigan*, 516 U.S. 442, 452 (1996) (holding that a private citizen was not entitled to just compensation under the Takings Clause, following a civil asset forfeiture, because the government had “already lawfully acquired” the assets in question “under the exercise of governmental authority other than the power of eminent domain”).

¹⁵⁵ See *Austin v. United States*, 509 U.S. 602, 603 (1993) (stating that “the legislative history confirms that Congress understood the provisions” of the federal asset forfeiture laws at issue in the case “as serving to deter and to punish”). Emphasizing these laws’ unique features, Professor Madeline Morris has referred to some criminal forfeiture laws as “uncompensated takings” rules. Madeline Morris, *The Structure of Entitlements*, 78 CORNELL L. REV. 822, 877–78 (1993).

¹⁵⁶ See, e.g., Peter J. Boettke et al., *Federalism and the Police: An Applied Theory of “Fiscal Attention”*, 49 ARIZ. ST. L.J. 907, 923 (2017) (“[L]ocal police have been found using civil asset forfeiture funds to purchase such things as margarita and popcorn machines, flat-screen TVs, a five million dollar helicopter, and many other items that state law would typically consider as an ‘inappropriate’ use of funds.”); Michael van den Berg, Comment, *Proposing a Transactional Approach to Civil Asset Forfeiture Reform*, 163 U. PA. L. REV. 867, 876 (2015) (noting that the government seized \$4.2 billion in assets in 2012 under civil asset forfeiture provisions from the 1984 Comprehensive Crime Control Act).

¹⁵⁷ See, e.g., van den Berg, *supra* note 156, at 869 (noting that “[w]hile the practice [of civil asset forfeiture] once had reputable roots, it has become a tool with enormous potential for abuse,” and proposing “specific recommendations for reform”).

there is no corresponding criminal conviction.¹⁵⁸ In fact, some administrative asset forfeiture actions do not even involve a formal judicial process.¹⁵⁹

As state and local law enforcement agency fiscal budgets have shrunk over time, many governments have grown increasingly reliant on income streams generated from sales of assets seized under forfeiture laws.¹⁶⁰ This growing reliance has predictably incentivized some governments to search for ways to seize even more private property,¹⁶¹ and increases in the volume and value of seized assets in some parts of the country suggests that many government agencies have been doing just that.¹⁶² In jurisdictions where local law enforcement agencies are permitted to retain larger percentages of the proceeds of seized assets, incentives to increase asset seizures are only amplified.¹⁶³

The relatively low demoralization costs associated with many civil asset forfeiture laws may partly explain why strong versions of these laws have subsisted in some jurisdictions for many years. Knowing that government agencies can legally seize private assets obtained through or used in connection with serious crimes is not likely to stoke strong demoralizing fears in the majority of citizens, who are generally law-abiding and thus recognize that such laws are unlikely to ever apply to them.

On the other hand, the demoralization costs—and corrective and distributive justice concerns—associated with civil asset forfeiture laws escalate when government entities begin going too far in seizing assets.¹⁶⁴ Because the Tak-

¹⁵⁸ Nelson, *supra* note 152, at 2450 n.24 (citing 18 U.S.C. § 983(c)).

¹⁵⁹ See STEFAN D. CASSELLA, ASSET FORFEITURE LAW IN THE UNITED STATES § 1-4, at 10–11 (2d ed. 2013) (noting that most of the U.S. Drug Enforcement Agency’s forfeiture claims take the form of “administrative” claims that involve no judicial action).

¹⁶⁰ See Boettke et al., *supra* note 156, at 908–09 (“Specifically, federal government transfers and aid soften the budget constraint of local police, and thereby alter the payoffs of local police departments to direct their resources and attention to their new funding sources—mainly, the U.S. federal government.”).

¹⁶¹ See David W. Rasmussen & Bruce L. Benson, *Rationalizing Drug Policy Under Federalism*, 30 FLA. ST. U. L. REV. 679, 715 (2003) (“Asset forfeiture laws . . . encourage more drug enforcement because . . . most of the proceeds of these *in rem* proceedings go to the agency.”).

¹⁶² See, e.g., Luis S. Rulli, *Seizing Family Homes from the Innocent: Can the Eighth Amendment Protect Minorities and the Poor from Excessive Punishment in Civil Forfeiture?*, 19 U. PA. J. CONST. L. 1111, 1120 (2017) (reporting that the U.S. Department of Justice’s federal asset forfeiture fund has increased from \$338 million in 1996 to more than \$2 billion in 2016).

¹⁶³ See, e.g., DICK CARPENTER II ET AL., INST. FOR JUST., POLICING FOR PROFIT 132–33 (2d ed. 2015), <https://ij.org/wp-content/uploads/2015/11/policing-for-profit-2nd-edition.pdf> [<https://perma.cc/FE45-AK3T>] (giving Texas a “D+” grade for its civil asset forfeiture laws, in part, because the state’s laws typically allow about 70% of the monetary proceeds from seized assets to go to the law enforcement agency that executed the seizure, thereby creating a “strong incentive to seize property”).

¹⁶⁴ The term “corrective justice” is defined and described in Part II above. See *supra* notes 91–94 and accompanying text. To the extent that civil asset forfeiture laws are disproportionately enforced against socioeconomically disadvantaged individuals, they may implicate distributive justice issues as well. For more on distributive justice, see *supra* notes 83–90 and accompanying text.

ings Clause is unequipped to address the corrective justice concerns that can arise under civil asset forfeiture laws, challengers of these laws typically base their claims instead on the Eighth Amendment's Excessive Fines Clause.¹⁶⁵ In essence, such arguments maintain that when the value of private assets seized in connection with an alleged crime vastly exceeds an appropriate monetary penalty for the crime, a government's act of seizure and claiming of title may constitute an unconstitutionally excessive fine.¹⁶⁶

Excessive Fines Clause-based arguments against civil forfeiture laws are gradually finding success in the courts, suggesting that constitutional constraints on this type of title-shifting rule may be improving over time. The U.S. Supreme Court expressly held in *Austin v. United States* a quarter century ago that civil asset forfeitures were subject to constraints under the Eighth Amendment's Excessive Fines Clause to the extent that they "punished" wrongdoers.¹⁶⁷ In the 2019 case of *Timbs v. Indiana*, the Supreme Court further held that the Excessive Fines Clause was incorporated against the states under the Fourteenth Amendment, and that the Clause was thus also applicable to state and local civil asset forfeitures.¹⁶⁸

Unfortunately, despite the holdings in *Austin* and *Timbs*, as well as various other court decisions and reforms aimed at limiting asset forfeiture powers,¹⁶⁹ governments throughout much of the country continue to use asset forfeiture laws to generate substantial revenue in ways that unjustifiably shift some property entitlements.¹⁷⁰ More definitive tests and standards are still needed in most jurisdictions to help law enforcement agencies and courts ade-

¹⁶⁵ See U.S. CONST. amend. VIII ("Excessive bail shall not be required, nor excessive fines imposed . . .").

¹⁶⁶ See, e.g., *Austin v. United States*, 509 U.S. 602, 603 (1993).

¹⁶⁷ See *id.* at 602 (holding a civil asset forfeiture under a particular statute to be "a monetary punishment" that is "subject to the limitations of the Excessive Fines Clause").

¹⁶⁸ 139 S. Ct. 682, 686–87, 690–91 (2019).

¹⁶⁹ The Civil Asset Forfeiture Reform Act of 2000 (CAFRA) also placed constraints on civil asset forfeitures. Civil Asset Forfeiture Reform Act of 2000, Pub. L. No. 106-185, 114 Stat. 202 (2002); see also Rachel L. Stuteville, Comment, *Reverse Robin Hood: The Tale of How Texas Law Enforcement Has Used Civil Asset Forfeiture to Take from Property Owners and Pad the Pockets of Local Government—The Righteous Hunt for Reform Is On*, 46 TEX. TECH L. REV. 1169, 1180–81 (2014) (describing various new constraints on civil asset forfeiture under CAFRA, but noting that "there is also some belief that CAFRA is still not as comprehensive as it could be"); Andrew J. Weinstein & Barrie A. Dnistrian, 'Timbs v. Indiana': *Much Ado About Nothing or a Wave in the Sea of Change?*, LAW.COM (June 4, 2019), <https://www.law.com/newyorklawjournal/2019/06/04/timbs-v-indiana-much-ado-about-nothing-or-a-wave-in-the-sea-of-change/?slreturn=20190708143022> [<https://perma.cc/BTD3-KP7E>] (describing multiple recent Supreme Court cases that impose additional constraints on civil asset forfeiture practices).

¹⁷⁰ See Note, *How Crime Pays: The Unconstitutionality of Modern Civil Asset Forfeiture as a Tool of Criminal Law Enforcement*, 131 HARV. L. REV. 2387, 2390 (2018) (reporting that "the Justice and Treasury departments alone received nearly \$4.5 billion in forfeiture proceeds in 2014" and that "individual states have taken in as much as \$46 million in a single year from the practice").

quately distinguish legitimate, remedial asset forfeitures from excessive, opportunistic ones. Although an examination of such possible tests lies outside the scope of this Article, a growing body of academic literature focused on asset forfeitures offers hope that meaningful progress in this area may be on the horizon.¹⁷¹

B. Title-Terminating Rules

“Title-terminating rules” comprise a second distinct category of property entitlement-shifting rules.¹⁷² Title-terminating rules shift title from private parties to the shared commons and thus effectively terminate title to the assets involved.¹⁷³ Although Bell and Parchomovsky characterized at least some title-terminating rules as “zero order pliability rules,” or rules that provide “property rule protection . . . succeeded by a no-liability rule,” the fact that original title holders lose all asset-related rights under these laws suggests that they actually shift entitlements.¹⁷⁴ Unlike the title-shifting rules described above, which shift title to a single private party, title-terminating rules permanently authorize any and all others to use or claim a formerly private asset after a

¹⁷¹ See, e.g., Kevin Arlyck, *The Founders' Forfeiture*, 119 COLUM. L. REV. 1449 (2019) (examining the constitutional protections against civil forfeiture through a historical lens); Rebecca J. Huss, *Ensuring Effective Tools for a Challenging Task: Amending the Animal Welfare Act's Animal Fighting Venture Civil Asset Forfeiture Provision*, 78 U. PITT. L. REV. 399, 402, 404 (2017) (discussing the “issues that arise when law enforcement is considering seizing animals that may be part of an animal fighting operation” and “consider[ing] arguments made by both proponents and opponents of [asset forfeiture] laws”); Nelson, *supra* note 152, at 2452 (“evaluat[ing] the constitutionality of civil and administrative forfeiture from the perspective of . . . originalism . . .”); Rulli, *supra* note 162, at 1111 (proposing a new constitutional test for excessiveness of civil forfeitures); Vanita Saleema Snow, *From the Dark Tower: Unbridled Civil Asset Forfeiture*, 10 DREXEL L. REV. 69, 69 (2017) (describing “how racially biased policing results in law enforcement disproportionately seizing African Americans’ property . . . [and attempting to use] issues of protest movements as a vehicle to move the Supreme Court to change discriminatory standards under forfeiture statutes”).

¹⁷² See *infra* notes 173–175 and accompanying text.

¹⁷³ Bell & Parchomovsky, *supra* note 4, at 39.

¹⁷⁴ *Id.* Retroactive applications of the genericism doctrine in trademark law are one of the two types of zero-order pliability rules that Bell and Parchomovsky mentioned in their article. *Id.* at 44–49. The other type was patent and copyright laws, which create certain exclusive rights that ultimately terminate at the end of statutory time periods. *Id.* at 39–44. Patent and copyright laws are not examples of entitlement-shifting rules because the entitlements that patent and copyright holders possess are explicitly limited and fixed in duration from the first day they are issued and thus more closely resemble a term-of-years leasehold interest (or, for copyrights, a life estate interest plus a term of years). Because of their pre-set expiration, they create none of the demoralization costs or justice issues associated with property entitlement shifting highlighted in Part II above. See *supra* notes 53–98 and accompanying text.

triggering event.¹⁷⁵ The following are brief descriptions and analyses of two examples of this type of rule.¹⁷⁶

1. Trademark Law's Genericism Doctrine

One clear example of a title-terminating rule is the genericism doctrine in trademark law.¹⁷⁷ Under retrospective applications of this doctrine, a trademark that was formerly distinctive and legally enforceable becomes generic through overly broad use and thereby loses trademark protection—a transition known as “genericide.”¹⁷⁸ Genericide effectively shifts a property entitlement—authority to exclude all others from using a particular mark—from the trademark holder to the public.¹⁷⁹ Nevertheless, the public generally holds only open-access rights and no exclusion rights after such a shift, suggesting that the rule actually extinguishes all property entitlements associated with the mark.¹⁸⁰

Shifts in property entitlements occurring under the genericism doctrine often generate positive allocative efficiency gains.¹⁸¹ When a trademarked word or image becomes increasingly generic and less clearly tied to a particular producer over time, the mark's value to its holder diminishes and the poten-

¹⁷⁵ Bell and Parchomovsky described zero-order pliability rules as ones under which, upon the occurrence of some “triggering event, the initial entitlement holder loses the ability to exercise property rule protection . . . over her property,” and “[i]nstead, [the entitlement holder must allow] all comers [to] use the property free of charge.” Bell & Parchomovsky, *supra* note 4, at 39.

¹⁷⁶ See *infra* notes 177–193 and accompanying text.

¹⁷⁷ Despite classifying the genericism doctrine as a zero-order pliability rule, Bell and Parchomovsky seem to recognize that genericism doctrine effectively reallocates valuable entitlements. See Bell & Parchomovsky, *supra* note 4, at 48 (“[T]he genericism doctrine is an ex post mechanism for reallocating generic terms to a higher valued user: the public, consumers, and competitors alike.”).

¹⁷⁸ Published references to “genericide” are far too numerous to cite here exhaustively. Bell and Parchomovsky offered numerous representative examples in their article of formerly trademarked terms that subsequently lost protection when they became too generic. See *id.* at 47 (listing “‘aspirin,’ ‘cola,’ ‘thermos,’ ‘corn-flakes,’ ‘yo-yo,’ ‘trampoline,’ ‘escalator,’ and ‘linoleum,’” as examples).

¹⁷⁹ Genericide likewise extinguishes other core entitlements associated with the trademark, including entitlements to license rights in the mark to others and to ultimately sell or otherwise dispose of the mark. See Neal A. Hoopes, *Reclaiming the Primary Significance Test: Dictionaries, Corpus Linguistics, and Trademark Genericide*, 54 TULSA L. REV. 407, 415 (2019) (explaining that, because generic terms belong in the public domain, they “can never serve as a protectable trademark”).

¹⁸⁰ Admittedly, on rare occasions it is possible for a generic mark to regain secondary meaning and become a protectable mark again. See Jake Linford, *A Linguistic Justification for Protecting “Generic” Trademarks*, 17 YALE J.L. & TECH. 110, 124 (2015) (citing Singer sewing machines and Goodyear rubber examples). This is arguably, however, better characterized as the birth of a new trademark right, as such protection is based on a secondary meaning that did not exist when the mark fell victim to genericide.

¹⁸¹ Bell and Parchomovsky seem to acknowledge as much in their discussion of these issues. See Bell & Parchomovsky, *supra* note 4, at 48 (stating that the genericism doctrine allows for reallocations of “generic terms to a higher value user,” and thereby “provides a nonmarket mechanism for improving allocative efficiency”).

tial gains from allowing non-trademark holders to freely use it increase.¹⁸² When potential gains to non-holders from freely using the mark begin to exceed the mark's value to its holder, the genericism doctrine furnishes a means of shifting the entitlement to its higher-valued users.

Unfortunately, trademark law's genericism doctrine probably generates demoralization costs in excess of its avoided settlement costs. The doctrine essentially punishes highly successful trademark holders by stripping them of trademark protection solely because their mark has become too connected to a particular product or service—a potential consequence that can understandably stoke fears in the holders of popular marks. Indeed, the threat of genericide has inspired high-achieving trademark holders of marks such as “Xerox” and “Kleenex” to invest heavily in aggressive marketing campaigns seeking to deter consumers from using their marks to generically refer to photocopies or facial tissues.¹⁸³ Moreover, because genericide of valuable trademarks is a fairly rare occurrence and primarily benefits private competitors, the settlement costs avoided by not requiring compensation when non-trademark holders begin using the mark are modest at best.

Given the relatively high demoralization costs and low avoided settlement costs associated with the genericide doctrine, it is hardly surprising that Bell and Parchomovsky characterized the doctrine as suboptimal and suggested multiple alternative approaches, all of which would require non-trademark holders to somehow pay to use generic marks.¹⁸⁴ Like adverse possession laws, the genericism doctrine arguably would be more efficient and just if it were transformed through such compensation requirements into a type of pliability rule.¹⁸⁵

2. Laws Governing Abandoned Property

Many abandonment laws are also classifiable as title-terminating rules.¹⁸⁶ Common-law doctrines governing the abandonment of personal property in most states provide that, when the conditions for legally abandoning such property are met, these assets essentially go “up for grabs” and anyone may

¹⁸² See *id.* at 47–48 (noting that the genericism doctrine “empowers courts to terminate . . . the property rule protection of marks whose value to third parties—i.e., competitors and consumers—exceeds their value to their original appropriators”).

¹⁸³ See JANE C. GINSBURG ET AL., TRADEMARK AND UNFAIR COMPETITION LAW: CASES AND MATERIALS 349, 349–60 (2d ed. 1996) (describing the advertising efforts of Xerox and Kimberly-Clark to prevent the genericide of their valuable marks).

¹⁸⁴ See Bell & Parchomovsky, *supra* note 4, at 72 (“Congress could replace the current rule with one that grants competitors the right to use dominant marks in exchange for payment.”).

¹⁸⁵ See *supra* note 184 and accompanying text.

¹⁸⁶ See *infra* note 187 and accompanying text.

possess and thereby claim title to them.¹⁸⁷ Although abandonment of fee simple interests in real property is generally disallowed under common law, it is relatively easy to legally abandon an easement, water right, or mineral right.¹⁸⁸ Abandonment of chattels is also generally permitted at common law.¹⁸⁹ Because claimants of abandoned assets may potentially resurrect and claim the property entitlements at issue for themselves, at least one scholar has sensibly argued that abandonment doctrines more accurately involve delayed title shifting.¹⁹⁰ However, because there is often no known transferee at the time of abandonment under these doctrines, they are categorized here as title-terminating rules.

Like shifts in property entitlements occurring under the genericism doctrine, shifts resulting from abandonment laws likely increase allocative efficiency much of the time. Rational, self-interested property owners usually opt to abandon assets only if they believe that doing so will be more beneficial to them than retaining ownership.¹⁹¹ Likewise, few non-owners are likely to attempt to possess and claim an abandoned asset unless they believe that doing so will benefit them. Accordingly, by making it possible for assets to fall out of private ownership under certain prescribed circumstances, abandonment laws are a potentially useful tool for helping assets to flow to higher-valued users.

A weighing of demoralization costs against avoided settlement costs also tends to justify allowing the shifting of property entitlements through abandonment doctrines. The demoralization costs arising from the possibility of losing property entitlements under abandonment doctrines are fairly low because the legal requirements under such doctrines are typically sufficient to

¹⁸⁷ See Lior Jacob Strahilevitz, *The Right to Abandon*, 158 U. PA. L. REV. 355, 360–61 (2010) (defining abandonment also as “a unilateral, nondestructive means of ridding oneself of ownership”).

¹⁸⁸ See RESTATEMENT OF PROPERTY § 504 cmt. a (AM. L. INST. 1944) (noting that abandonment of fee ownership in land, “if permitted at all, is permitted only under rules stricter than those which prevail in the case of the abandonment of easements”); see also Eduardo M. Peñalver, *The Illusory Right to Abandon*, 109 MICH. L. REV. 191, 201–02 (2010) (identifying water rights and mineral rights as types of “rights related to land use that can be abandoned,” and explaining the basic constraints on abandonment of those rights).

¹⁸⁹ Strahilevitz, *supra* note 187, at 412.

¹⁹⁰ Professor Lior Strahilevitz has effectively argued this point. See *id.* at 361 (arguing that it is more correct to “conceive of abandonment as a transfer, albeit one with a temporal lag built into it”).

¹⁹¹ Professor Saul Levmore has similarly observed that changed circumstances can sometimes incentivize rational self-interested property owners to abandon assets, and that such abandonment can even cause private property to devolve into commons property. See, e.g., Saul Levmore, *Two Stories About the Evolution of Property Rights*, 31 J. LEGAL STUD. S421, S425 (2002) (“[A] farmer might cease to maintain fences, and eventually hunters and hikers might have the run of the place; a serious price change or technological development might lead to the virtual abandonment of a town, and then this ghost town might be available to all who pass through with little thought of boundaries and deeds . . . in a state that is accurately described as open access.”).

prevent parties from abandoning assets that they actually value.¹⁹² Moreover, rules requiring claimants of abandoned property to somehow identify and compensate former owners would be impractical much of the time, and would only slow the flow of abandoned resources to higher-valued users. In sum, so long as reasonable constraints are in place to prevent parties from dumping negative-value assets onto governments, abandonment laws tend to shift property entitlements in efficient ways without many ancillary costs and thus arguably deserve to persist rather than be rejected or converted into liability rules.¹⁹³

C. Other Shifts of Single Property Entitlements

The other main category of rules that shift individual property entitlements consists of rules that shift something less than full title.¹⁹⁴ Several common-law doctrines fall within this category, including many that govern prescriptive easements and implied easements.

The potential efficiency gains, demoralization costs, and avoided settlement costs associated with these rules tend to mirror those of the adverse possession doctrine described above, which suggests that converting them into liability rules by adding a compensation requirement would be desirable.¹⁹⁵ These doctrines usually improve allocative efficiency by enabling parties to get critically needed legal access to land. To the extent they fail to compensate landowners for lost exclusion rights, however, they surely generate demoralization costs in excess of any avoided settlement costs in some instances. As highlighted below, a few states today actually have added compensation requirements to at least some of these doctrines, thereby changing them from entitlement-shifting rules into classic liability rules.¹⁹⁶ These compensation requirements are appealing in that they respect landowners' longstanding property entitlements while still allowing qualifying claimants to gain legal access to and make more optimal uses of land.¹⁹⁷ Unfortunately, concerns that adding compensation requirements to these

¹⁹² See Strahilevitz, *supra* note 187, at 362 ("It is widely assumed that property is only abandoned when it becomes worthless or when the transaction costs of transferring the property exceed its market value."). For similar reasons, such laws also tend to generate relatively few justice-based concerns.

¹⁹³ See *supra* notes 191–192 and accompanying text.

¹⁹⁴ See *infra* notes 199–210 and accompanying text.

¹⁹⁵ See *supra* notes 137–150 and accompanying text.

¹⁹⁶ See *infra* notes 205–207 and accompanying text.

¹⁹⁷ At least one scholar has recently emphasized the efficiency-promoting benefits of requiring compensation in connection with statutory easements involving landlocked property. See Yun-chien Chang, *Hybrid Rule: Hidden Entitlement Protection Rule in Access to Landlocked Land Doctrine*, 91 TUL. L. REV. 217, 240 (2016) ("Requiring landlocked owners to compensate neighbors is justifiable from an economic perspective [because] . . . [c]ompensation forces landlocked owners to internalize the costs their passage imposes on neighbors."). Following his rigorous analysis of these easement rules, Professor Yun-chien Chang ultimately advocates for a sophisticated "hybrid rule of limited liability rules and residual property rules" to govern these situations. *Id.* at 256.

doctrines would legalize “private takings” and could thus provoke challenges under the Takings Clause’s public use requirement seem to at least partly explain why more states have yet to embrace this approach.¹⁹⁸

1. Prescriptive Easements

Prescriptive easement doctrines routinely shift individual property entitlements among landowners.¹⁹⁹ Upon establishing the elements of a prescriptive easement claim, a successful claimant receives an easement to access specific portions of the defendant’s land.²⁰⁰ Typically, recipients of these new prescriptive easements are not required to compensate servient landowners for their consequent losses of exclusion rights. When courts legally recognize a prescriptive easement without requiring any compensation, they effectively shift a valuable property entitlement from the defendant landowner to the new easement holder.

Like adverse possession laws, prescriptive easement laws have drawn criticism over the years for their propensity to reward trespassers with property rights that could only have otherwise been acquired through voluntary purchase. In the words of one court:

[W]hy should a willful trespasser receive more favorable treatment at the hands of a court of equity than the buyer in a specific performance case, an entity exercising the statutory right of eminent domain or the innocent creator of a minor encroachment?²⁰¹

Despite such arguments, prescriptive easement doctrines persist throughout the United States and seldom require recipients of these judicially created easements to compensate servient landowners.²⁰²

¹⁹⁸ See Abraham Bell, *Private Takings*, 76 U. CHI. L. REV. 517, 578 (2009) (“[S]everal courts have opined that as a result of the Public Use Clause, ‘a “private taking” cannot be constitutional even if compensated.’” (citing *Armendariz v. Penman*, 75 F.3d 1311, 1320 n.5 (9th Cir. 1996) (en banc))). Bell generally advocates for greater allowance of private takings. *Id.* at 585.

¹⁹⁹ See *infra* note 200 and accompanying text.

²⁰⁰ See DALE A. WHITMAN ET AL., *THE LAW OF PROPERTY* 366 (4th ed. 2019) (“[I]f the prescriptive acts continue for the period of the statute of limitations, the prescriber acquires rights that correspond to the nature of the use . . . [and thus creates] an easement.”).

²⁰¹ *Warsaw v. Chi. Metallic Ceilings, Inc.*, 188 Cal. Rptr. 563, 569 (Ct. App. 1983), *rev’d*, 676 P.2d 584 (Cal. 1984).

²⁰² Thomas Merrill and Henry Smith have noted the possibility of requiring compensation under prescriptive easement doctrines and thereby applying liability rules when the elements of these doctrines are established. See MERRILL & SMITH, *supra* note 113, at 1013 (describing how adopting such an approach would transform the true owner’s protection from “an entitlement . . . protected by a property rule into an entitlement . . . protected by a liability rule”).

2. Easements Implied by Necessity, Prior Use, or Estoppel

Various doctrines recognizing implied easements by necessity, prior use, or estoppel can similarly reassign individual property entitlements.²⁰³ Implied easements by necessity typically arise when the grantee of a newly severed portion of a land parcel discovers that the severance and conveyance made the new parcel “landlocked,” lacking legal access to a public road.²⁰⁴ In such cases, a court may recognize an easement in favor of the grantee based on an inference that the parties to the deed conveying the parcel intended to include the easement.

In roughly half of U.S. states, parties prevailing on claims of easements implied by necessity must compensate landowners at fair market value for these newly recognized easement rights.²⁰⁵ Common law rules in most other states, however, continue to allow courts to create implied easements by necessity without any compensation requirement—a clear shift of a valuable property entitlement.²⁰⁶ Similar common-law doctrines recognize implied easements from prior use when a landowner, who has severed and conveyed away a portion of a parcel, had previously used part of the retained land to access or enjoy the conveyed portion.²⁰⁷ Courts ordinarily do not require the payment of com-

²⁰³ For a detailed review of these easements and an analysis of the prospect of requiring compensation payments in connection with them, see Michael V. Hernandez, *Restating Implied, Prescriptive, and Statutory Easements*, 40 REAL PROP. PROB. & TR. J. 75 (2005).

²⁰⁴ WHITMAN ET AL., *supra* note 200, at 358 (stating that easements implied by necessity can generally arise when a landowner “makes a conveyance of part of that land, retaining the rest; and . . . after severance of the two parcels, one of them is ‘landlocked,’ i.e., to reach that parcel, it is ‘necessary’ to pass over the other to reach a public street or road”).

²⁰⁵ See MERRILL & SMITH, *supra* note 113, at 998 (noting that “[a]bout half of the states have adopted statutes that provide for condemnation of private easements for access to landlocked or inaccessible property” and that these laws require the “landlocked owner” to “pay just compensation (fair market value) for the rights so obtained” (citing *Sorenson v. Czinger*, 852 P.2d 1124, 1127 (Wash. Ct. App. 1993))). At least one legal scholar has also specifically argued in favor of requiring compensation in connection with these implied easements. See Hernandez, *supra* note 203, at 94 (arguing that “[b]asic principles of fairness . . . obligate the dominant tenant to compensate the servient tenant” in most cases, finding implied easements by necessity).

²⁰⁶ Admittedly, rules requiring the payment of compensation upon recognition of an implied easement by necessity seem inconsistent with the basic premise of this doctrine: that the disputing parties intended to include the easement with conveyance of the benefited land and thus would have incorporated the easement’s value into their agreed purchase price. On a similar rationale, one could argue that newly recognizing such implied easements, without requiring any compensation, does not shift an entitlement. This argument, however, overlooks the fact that the easement right would not legally exist without operation of the doctrine. In that sense, from a practical standpoint, successful applications of the doctrine do indeed shift a property entitlement.

²⁰⁷ See WHITMAN ET AL., *supra* note 200, at 361 (identifying the “essential elements” of an “easement implied from prior use” as: “(1) the owner of a parcel of land makes a conveyance of part of that land, retaining the rest; (2) before the severance of the parcel, the owner was using one of the parts to benefit the owner’s use and enjoyment of the other . . . ; (3) the use is ‘apparent,’ and (4) the

pensation in connection with this type of easement either, although at least one scholar has advocated for it.²⁰⁸

Uncompensated easements or irrevocable licenses may likewise be implied by estoppel in many jurisdictions when a landowner misleads a non-owner into believing that an easement exists and the non-owner detrimentally relies on that misrepresentative statement or conduct.²⁰⁹ Whenever a court applies one of these doctrines without requiring compensation, the court likewise shifts a valuable property entitlement from a landowner to the benefited party.²¹⁰

IV. SHIFTING SEVERAL PROPERTY ENTITLEMENTS AT ONCE

This Part focuses on a second and potentially even more problematic class of property entitlement-shifting rules than the one-at-a-time rules just described.²¹¹ The laws and government actions falling into this second category shift hundreds or even millions of property entitlements all at once.²¹²

Certain types of property entitlements are far more susceptible to mass entitlement shifting than others. For instance, one group of particularly vulnerable entitlements are those that rely heavily on governments for their creation or use. As described below, copyright interests fall into this group.²¹³ Copyright interests are largely creatures of federal statutory law and thus have historically been easier for the federal government to manipulate in ways that amount to entitlement shifting. Rights to transmit signals at certain frequencies

use is to some extent ‘necessary’ to the continued use and enjoyment of the part it would benefit” (citations omitted)).

²⁰⁸ See Hernandez, *supra* note 203, at 98 (“A court should not imply an easement by prior use contrary to the intent of the parties . . . [but if] it does, the court should award compensation for the same policy reasons that justify compensation for an easement implied by necessity.”).

²⁰⁹ See RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES § 2.10 (AM. L. INST. 2000) (“[T]he owner or occupier of land is estopped to deny the existence of a servitude burdening the land when . . . (2) the owner or occupier represented that the land was burdened by a servitude under circumstances in which it was reasonable to foresee that the person to whom the representation was made would substantially change position on the basis of that representation, and the person did substantially change position in reasonable reliance on that representation.”).

²¹⁰ On justice grounds, Professor Michael K. Hernandez has argued for compensation in the context of these implied easements as well as for implied irrevocable licenses by estoppel. See Hernandez, *supra* note 203, at 102 (stating that if a recipient of such an implied easement or license “is not required to pay compensation, he will obtain a perpetual property interest for free and will be in a more advantageous position than if he had negotiated and paid for an easement”).

²¹¹ See *infra* note 212 and accompanying text.

²¹² Multiple other legal academicians have explored mass entitlement shifts more thoroughly and identified additional potential examples of these shifts. See, e.g., T. Nicolaus Tideman, *Takings, Moral Evolution, and Justice*, 88 COLUM. L. REV. 1714, 1714 (1988) (discussing land and natural resources as “common heritage” that “are not properly subject to claims of private ownership”); see also Carol M. Rose, *Property and Expropriation: Themes and Variations in American Law*, 2000 UTAH L. REV. 1, 5–6 (discussing different types of disruptions to property).

²¹³ See *infra* notes 260–265 and accompanying text.

along the electromagnetic spectrum, over which the Federal Communications Commission (FCC) exercises significant governance authority, are also more susceptible to shifting for these reasons.²¹⁴ Federal grazing permits, Western water rights, and fishery “catch shares” are similarly rooted in government authority and thus may likewise be at greater risk of shifting to others.²¹⁵

Property entitlements that are relatively difficult to define or that reside near the outer fringes of established property law also may be more prone to shifting. Property theorists have used various names, such as “vexed resources” or “emerging resources,” to describe assets fitting these descriptions.²¹⁶ At least one pair of scholars even recently advocated for treating these types of property entitlements—which they described as residing along the “edges” of property law—as uniquely malleable and shift-able in furtherance of evolving public policy goals.²¹⁷

Unfortunately, as appealing as the flexibility available through liberal shifting of property entitlements along the edges of property might seem, it often comes at a hefty cost. As some of the examples that follow illustrate, treating established property entitlements near the fringes as highly malleable

²¹⁴ There has long been active debate as to whether FCC-granted license rights for transmission at particular frequencies should be characterized as private property. *See, e.g.*, J. Armand Musey, *Broadcasting Licenses: Ownership Rights and the Spectrum Rationalization Challenge*, 13 COLUM. SCI. & TECH. L. REV. 307, 342, 351 (2012) (acknowledging that broadcast licenses have the basic features of property rights in that their holders possess “the right . . . to possess, use, enjoy, and dispose of a thing and to exclude everyone else from interfering with it,” but that license holders nonetheless “have a relatively weak argument” for property rights protectable under the Takings Clause (citation omitted)); *cf.* Krystilyn Corbett, Note, *The Rise of Private Property Rights in the Broadcast Spectrum*, 46 DUKE L.J. 611, 634 (1996) (arguing that, even though federal statutory provisions purport to preclude the formation of private ownership of broadcast rights in the electromagnetic spectrum, such rights “now more closely resemble private property rights” because holders “control the use of their portion of the spectrum, to exclude use by others, and to exercise discretion in acquisition and transfer”).

²¹⁵ Professor Katrina Wyman categorizes grazing permits, fishery catch shares, and Western water rights as “environmental property rights,” and argues that many such rights are “hard to propertize as completely as land” and are “incomplete along the dimensions of duration, definition, and breadth of use.” Katrina M. Wyman, *Second Generation Property Rights Issues*, 59 NAT. RES. J. 215, 217, 229–30 (2019).

²¹⁶ *See, e.g.*, Chen, *supra* note 44, at 47–48 (defining “emerging natural resources” as “naturally occurring substances that, while previously not considered valuable, are becoming increasingly subject to economically viable exploitation because of technological advances or socioeconomic change,” and suggesting that “[t]he question of who is to own such resources inevitably accompanies their newfound value, particularly for resources that could not be meaningfully captured, modified, or utilized before recent technological innovations”); Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799, 928 (2004) (describing submerged lands as “a uniquely vexed resource, in the sense of one afflicted by an extraordinarily high degree of legal uncertainty”).

²¹⁷ *See* David A. Dana & Nadav Shoked, *Property’s Edges*, 60 B.C. L. REV. 753, 822 (2019) (arguing for “recognition of edges as a distinct property category” and not “fetishizing the property boundary line” for such category of property, but instead allowing for solutions “that accommodate the interests of both the private owner and the public”).

can drive up demoralization costs, deter optimal levels of investment, and enable governments to abuse their entitlement-shifting powers to enrich political rent-seekers.²¹⁸

Although the Takings Clause places significant constraints on governments' powers to shift large numbers of property entitlements all at once, such shifts still sometimes occur and may even be justifiable in some cases. As Justice Oliver Wendell Holmes famously suggested, government activity could "hardly go on" if governments were legally obligated to compensate citizens for every entitlement-shifting regulatory action.²¹⁹ In that sense, takings laws are an imperfect attempt to balance the competing goals of safeguarding existing property entitlements and allowing governments to efficiently regulate uses of privately-held assets.²²⁰

Unfortunately, distinguishing justifiable mass shifts of property entitlements from unjustifiable ones is often a difficult and complex task. Because such shifts inherently involve no compensation to losers, governments do not internalize all the costs of effectuating them and thus cannot be trusted to pursue only efficiency-promoting ones. In fact, as public choice theorists might predict, governments sometimes seek to shift entitlements primarily to benefit themselves or powerful special interest groups that have bought their influence.²²¹

Evaluating these types of rules and actions is complicated even further by the fact that they tend to generate relatively high demoralization costs but also avoid relatively high settlement costs. Requiring compensation in connection

²¹⁸ See *infra* notes 255–294 and accompanying text.

²¹⁹ Pa. Coal Co. v. Mahon, 260 U.S. 393, 413 (1922).

²²⁰ These issues have enjoyed some additional attention more recently because of language in Justice Scalia's 2010 Supreme Court opinion in *Stop the Beach Renourishment, Inc. v. Florida Department of Environmental Protection*, in which he noted the possibility of a judicial takings doctrine, which, if embraced, would impose additional limits on courts' power to shift property entitlements. See 560 U.S. 702 (2010); see also Ilya Somin, *Stop the Beach Renourishment and the Problem of Judicial Takings*, 6 DUKE J. CONST. L. & PUB. POL'Y 91, 92 (2011) (discussing the background of *Stop the Beach*, and arguing "that judicial takings do exist and are forbidden by the Fifth Amendment"); Barton H. Thompson, Jr., *Judicial Takings*, 76 VA. L. REV. 1449, 1449–50 (1990) ("The issue in this Article is whether the takings protections also limit the degree to which courts can change property law and, if they do, whether the federal courts should actively review the decisions of state courts to ensure that state court decisions remain within constitutional bounds."); *The Supreme Court, 2009 Term—Leading Cases*, 124 HARV. L. REV. 299, 300 (2010) (providing an overview of the *Stop the Beach* decision).

²²¹ See, e.g., Jonathan R. Macey, *Promoting Public-Regarding Legislation Through Statutory Interpretation: An Interest Group Model*, 86 COLUM. L. REV. 223, 230 (1986) ("The major implications of interest group theory are that legislation transfers wealth from society as a whole to those discrete, well-organized groups that enjoy superior access to the political process, and that government will enact laws that reduce societal wealth and economic efficiency in order to benefit these economic groups.").

with a mass shift in property entitlements is often likely to generate high settlement costs because of the sheer number of potential claimants involved. However, the demoralization costs associated with such rules and actions tend also to be relatively high because they feed fears that governments will do more mass reshuffling of existing property entitlements in the future. The complexity inherent in analyzing these types of rules is illustrated in the following specific examples.

A. Laws Designating New Contraband Items

Laws that newly designate certain items as being illegal contraband can trigger mass shifts in property entitlements.²²² Governments occasionally enact laws that declare a particular asset or type of asset to be contraband for the first time and order citizens to destroy or forfeit any such assets, offering no compensation in return.²²³ Owners of newly banned items may sometimes retain some limited entitlements in them under such laws.²²⁴ However, because those limited rights generally do not encompass rights of possession, use, sale, or exclusion from government seizure, such laws and regulations can sweepingly shift large numbers of property entitlements from private citizens to governments.

The recently imposed federal ban on bump stocks—attachments designed to accelerate firing on semi-automatic rifles—exemplifies this type of mass entitlement-shifting rule. The U.S. Justice Department imposed a ban on bump stocks after a man used the devices in a horrifying 2017 mass shooting at a Las Vegas outdoor concert.²²⁵ The regulation, which was still under court challenge as of early 2021, required citizens who owned bump stocks to destroy them or forfeit possession of them to the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) within ninety days or face felony charges.²²⁶ Although market prices for bump stocks had historically been about two-hundred dollars, the

²²² See *infra* notes 223–231 and accompanying text.

²²³ For example, 18 U.S.C. § 1791 makes it illegal for prisoners to possess certain objects while incarcerated. Under 18 U.S.C. § 4012, if discovered, these objects will be forfeited to the U.S. government.

²²⁴ See, e.g., *People v. Walker*, 90 P.2d 854, 855 (Cal. Dist. Ct. App. 1939) (“Although it may be illegal to own or possess slot machines there yet exists certain rights in the individual who may possess such a contraband article as against anyone other than the state. The owner at least has the privilege of destroying the machine; he also has the right to surrender it to the authorities.”).

²²⁵ Adam Liptak, *Supreme Court Refuses to Block Ban on Bump Stocks*, N.Y. TIMES (Mar. 28, 2019), <https://www.nytimes.com/2019/03/28/us/politics/supreme-court-bump-stocks.html> [<https://perma.cc/MNL5-KXNJ>].

²²⁶ *Id.*

federal government was offering no compensation to current owners for destruction or forfeiture of their devices.²²⁷

Similar examples of uncompensated new bans on valuable items are scattered across history. For instance, an uncompensated ban on alcohol and alcohol-related equipment led to *Mugler v. Kansas*, a famous early regulatory takings case in which the Supreme Court found no compensable taking.²²⁸ Nearly a century later, the Court again found no taking in *Andrus v. Allard*, a case challenging a ban on the sale of eagle feathers.²²⁹ Courts have typically justified such denial of compensation based on broad public policy rationales.²³⁰ Some scholars have questioned the legitimacy of these arguments, and the recent bump stock ban has drawn a serious takings challenge.²³¹

Case-by-case analyses of new contraband laws are usually needed to determine whether they are cost-justified. Most new bans on items that pose genuine threats to public safety probably generate positive allocative efficiency gains. Nonetheless, the settlement costs avoided by not compensating property owners for forfeiting a newly banned item do not always exceed the demoralization costs generated from that approach. For instance, although the ATF would have incurred a substantial budgetary expense if it had agreed to compensate bump stock owners at fair market value, the fact that bump stocks are fairly uncommon suggests that the total payouts likely would have been no larger than those made by government agencies in some other contexts. As an example, the government paid out roughly \$161 million in compensation to owners of 3.2 million chickens, turkeys, and other birds that were ordered to

²²⁷ Martin Kaste, *Bump Stocks Will Soon Be Illegal, but That's Not Stopping Sales*, NPR (Feb. 4, 2019), <https://www.npr.org/2019/02/04/691287471/bump-stocks-will-soon-be-illegal-but-thats-not-slowing-sales> [<https://perma.cc/7CUF-AL85>].

²²⁸ 123 U.S. 623 (1887).

²²⁹ 444 U.S. 51 (1979). Concededly, because *Andrus* challenged a ban on sale and entailed no threat to exclusion rights in eagle feathers, it arguably involved merely a shift of a generic entitlement and not a “property entitlement” as defined in this Article.

²³⁰ The *Mugler* Court held that the brewing equipment ban at issue in that case was intended to protect citizens’ general welfare rather than to conscript private property for public use. 123 U.S. at 668. The *Andrus* Court justified the eagle feather sales ban on the grounds that eagle feather owners had only lost “one ‘strand’” in their bundle of property rights and had retained rights to possess the feathers and make other potentially profitable uses of them. 444 U.S. at 66.

²³¹ See, e.g., Jed Rubenfeld, *Usings*, 102 YALE L.J. 1077, 1151 (1993) (arguing that *Andrus*’s upholding of an uncompensated ban on the sale of eagle feathers “was troublesome for takings doctrine,” and also adding that “not only did the law single out, it also deprived property of virtually all economic value and took away a property right—the right to alienate”); see also Avery Anapol, *Gun Company Sues US Over Bump Stock Ban, Claiming \$20M in Losses*, THE HILL (Apr. 9, 2019), <https://thehill.com/regulation/court-battles/438066-gun-company-sues-us-over-bump-stock-ban-claiming-20-million-in> [<https://perma.cc/CD52-SN6X>] (“A Texas gun company is suing the U.S. government over the newly enacted ban on ‘bump stocks,’ claiming that . . . the government enacted the ban . . . ‘in violation of the 5th Amendment’”).

be euthanized during an outbreak of Newcastle disease in the early 2000s, and then paid out millions more during a subsequent outbreak in 2019.²³²

On the other hand, contraband laws can sometimes serve valuable public functions. The ATF's new bump stock ban did not transfer large amounts of wealth to any special interest groups,²³³ and the federal government planned to destroy the bump stocks it collected rather than gain financially by redistributing them for use by police forces, the military, or other government entities.²³⁴ In that sense, although incorporating compensation requirements into contraband laws might make them more just and efficient, current versions of these laws are less concerning than some of the other examples of attempted mass shifts in property entitlements described below.²³⁵

B. Intentional Government Flooding of Private Land

A more problematic form of mass property entitlement shifting occurs when a government entity shifts large numbers of entitlements from private parties to itself to evade liability for violating those entitlements.²³⁶ The U.S. Army Corps of Engineers (Corps) recently attempted this type of mass entitlement shifting after intentionally flooding more than ten thousand private homes and businesses in Houston to limit further flooding elsewhere in the city during Hurricane Harvey in 2017.²³⁷

²³² See Jaelyn Cosgrove, *To Stop a Virus, California Has Euthanized More Than 1.2 Million Birds. Is It Reckless or Necessary?*, L.A. TIMES (June 7, 2019), <https://www.latimes.com/local/lanow/la-me-ln-virulent-newcastle-disease-outbreak-in-southern-california-20190607-story.html> [<https://web.archive.org/web/20201211013900/https://www.latimes.com/local/lanow/la-me-ln-virulent-newcastle-disease-outbreak-in-southern-california-20190607-story.html>] (reporting on the latest Newcastle disease outbreak in California).

²³³ For instance, there were no widespread allegations that the ATF's new ban on bump stocks afforded any substantial economic benefits to the manufacturers or sellers of close substitute products for bump stocks, who in turn would likely experience a sharp increase in demand due to the bump stock ban.

²³⁴ See Laurel Wamsley, *Bump Stock Ban Proceeds After Supreme Court Denies Gun Advocates' Request to Halt It*, NPR (Mar. 28, 2019), <https://www.npr.org/2019/03/28/707637489/bump-stock-ban-proceeds-after-supreme-court-denies-gun-makers-request-to-halt-it> [<https://perma.cc/2KVQ-LZFY>] (quoting a retailer who formerly sold bump stocks as stating that confiscated bump stocks would be "shredded and recycled" by ATF agents).

²³⁵ See *infra* notes 236–294 and accompanying text.

²³⁶ See *infra* note 237 and accompanying text.

²³⁷ See Ilya Somin, *Is Federal Government Flooding of Houston Homes a Taking?*, WASH. POST (Oct. 31, 2017), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2017/10/31/is-federal-government-flooding-of-houston-homes-a-taking/> [<https://perma.cc/7EJF-8EC3>] (reporting on the various lawsuits filed by home and business owners after the Corps engaged in "controlled release" flooding in Houston).

The Corps initially built the Addicks and Barker dams and flood pools in the 1940s to help manage flood risks in the Greater Houston area.²³⁸ In connection with those projects, the Corps exercised its eminent domain authority and purchased thousands of acres of land from private landowners—a clear acknowledgement that those landowners and others in similar situations held entitlements against intentional flooding.²³⁹ During this time, the Corps also could have easily purchased more land or flowage easements from owners of lands situated on the fringes of the new flood pools. Of course, the Corps ultimately opted not to do so.²⁴⁰

The Corps's decision not to acquire rights to flood more lands near the Addicks and Barker flood pools created controversy when Hurricane Harvey dumped roughly one trillion gallons of water on Greater Houston in 2017.²⁴¹ To mitigate flooding elsewhere, the Corps intentionally allowed the Addicks and Barker flood pools to overflow their edges and spill onto adjacent lands, many of which housed residential neighborhoods.²⁴² The Corps then refused to compensate the thousands of owners of land within these areas for their resulting losses—an attempt to shift numerous valuable property entitlements from landowners to the government.²⁴³ Affected landowners responded by bringing

²³⁸ See Steve Jansen, *Barker and Addicks Dams Under a Flood Warning. That's Never Happened Before.*, HOUS. PRESS (Apr. 21, 2016), <https://www.houstonpress.com/news/barker-and-addicks-dams-under-a-flood-warning-that-s-never-happened-before-8343556> [<https://web.archive.org/web/20201126221934/https://www.houstonpress.com/news/barker-and-addicks-dams-under-a-flood-warning-that-s-never-happened-before-8343556>] (reporting on the dams' history and functionality in recent years).

²³⁹ See Neena Satija et al., *Houston Officials Let Developers Build Homes Inside Reservoirs. But No One Warned Buyers.*, TEX. TRIB. (Oct. 12, 2017), <https://apps.texastribune.org/harvey-reservoirs/> [<https://perma.cc/7S74-QG8S>] (describing the Corps's purchase of the Addicks and Barker reservoirs and the area's subsequent development).

²⁴⁰ See *id.* (“[T]he Army Corps . . . bought only about 24,500 acres back when it built Addicks and Barker in the 1940s—even though the agency knew at the time that about 8,000 more acres could actually flood . . . Herbert, [a] Fort Bend County judge, said he can't believe the Corps didn't buy more land back when it built the projects.”).

²⁴¹ Angela Fritz & Jason Samenow, *Harvey Unloaded 33 Trillion Gallons of Water in the U.S.*, WASH. POST (Sept. 2, 2017), <https://www.washingtonpost.com/news/capital-weather-gang/wp/2017/08/30/harvey-has-unloaded-24-5-trillion-gallons-of-water-on-texas-and-louisiana/> [<https://perma.cc/SET3-BGVB>].

²⁴² Emily Flitter, *Houston Residents Confront Officials Over Decision to Flood Neighborhoods*, REUTERS (Sept. 9, 2017), <https://www.reuters.com/article/us-storm-harvey-water/houston-residents-confront-officials-over-decision-to-flood-neighborhoods-idUSKCN1BK0RJ> [<https://perma.cc/YZX3-HEYA>].

²⁴³ See Jeff Jeffrey, *Federal Court Holds Army Corps Liable for Flooding Homes in Addicks and Barker Reservoirs After Harvey*, HOUSTON BUS. J. (Dec. 18, 2019), <https://www.bizjournals.com/houston/news/2019/12/18/federal-court-holds-army-corps-liable-for-flooding.html> [<https://perma.cc/2NCH-4YXY?type=image>] (explaining that before a federal court ordered the Corps to pay landowners just compensation, the Corps had argued that the “flooding is not a compensable taking because it was temporary and confined to a single flood event”).

takings claims against the Corps for its actions, citing, among other precedents, a recent Supreme Court decision holding that temporary government-induced flooding could trigger compensable takings.²⁴⁴

Some of the Corps's arguments against the Addicks and Barker flooding incident claims were essentially pleas for the Court to shift thousands of privately held property entitlements to the Corps to spare it from liability. One such argument was that actions by Mother Nature, not the Corps, resulted in violations of the plaintiffs' property entitlements: it was natural floodwaters that filled up the flood pools behind the dams and then spilled onto neighboring properties.²⁴⁵ The Corps emphasized that Hurricane Harvey was a rare and historic flood and noted that other property elsewhere in the city would have been damaged and lives potentially lost had the Corps proceeded differently.²⁴⁶

Of course, a precedent based on such an argument would create troubling incentives for future government decisionmakers engaged in flood protection. Why would any government willingly pay to acquire flowage easement rights and other property interests for a new flood spillway if it knew it would have no liability to affected property owners if the spillway was ever actually used for its intended purpose? Accordingly, the Court of Federal Claims held that the Corps's initial building of the dams itself constituted "action" sufficient to support a takings claim.²⁴⁷ The court emphasized that the Corps "was aware of the risk the dams' designs posed to private property" and could have mitigated those risks by acquiring "flowage easements on, or purchasing additional land" in the neighboring areas where the flooding ultimately occurred.²⁴⁸

The Corps's other main argument against the Addicks and Barker claims is perhaps the most common type of rationale made by seekers of mass entitlement shifting: an assertion that the entitlements at issue had never been assigned in the first place. Specifically, the Corps claimed that:

²⁴⁴ See *Ark. Game & Fish Comm'n v. United States*, 568 U.S. 23, 38 (2012) ("[G]overnment-induced flooding temporary in duration gains no automatic exemption from Takings Clause inspection."); see also Somin, *supra* note 237 (reporting on the various lawsuits filed against the Corps by home and business owners in Houston).

²⁴⁵ See *In re Upstream Addicks & Barker (Tex.) Flood-Control Reservoirs*, 138 Fed. Cl. 658, 666 (2018) (explaining the government's argument that it was its inaction, rather than action, at issue, and that inaction could not amount to a taking).

²⁴⁶ See Angela Morris, *Trial Begins Against Government Over Hurricane Harvey Flooding*, LAW.COM (May 3, 2019), <https://www.law.com/texaslawyer/2019/05/03/trial-starts-monday-against-government-over-hurricane-harvey-flooding-unusual-site-visit-planned/> [<https://perma.cc/N56K-6F47>] (noting that Corps had "argued in its memorandum that the upstream plaintiffs' claims fail because their flooding resulted from a one-time and temporary event from the historical storm," and quoting a pretrial memorandum arguing that "[t]he Corps' actions constituted an exercise of governmental power to prevent loss of life and far worse damage to private property").

²⁴⁷ *In re Upstream*, 138 Fed. Cl. at 666–67.

²⁴⁸ *Id.* at 667.

(1) Texas law recognizes no property right in keeping property free from diversions of water from dams, (2) Texas law recognizes no property right vis-à-vis a preexisting flood control structure, and (3) the federal Flood Control Act is a longstanding background principle that limits plaintiffs' property rights.²⁴⁹

Fortunately, the court in *In re Upstream Addicks & Barker (Tex.) Flood-Control Reservoirs* rejected these assertions and the Corps's other arguments, ultimately holding that the plaintiff landowners held valid property interests in not having their land flooded by the government and that the Corps's actions in building the dams caused the flooding.²⁵⁰ As of early 2021, discovery regarding the amount of just compensation payable to affected landowners had been continued because of the COVID-19 pandemic, but given the extent of the flood damage total payouts were likely to be in the millions of dollars.²⁵¹

The mere fact that respecting existing property entitlements by requiring compensation in cases like *In re Upstream* would result in high settlement costs does not necessarily justify shifting property entitlements to avoid those costs. As suggested above, requiring compensation tends to create more optimal incentives for governments acting in these roles. Requiring compensation also limits demoralization costs and thereby encourages more optimal levels of investment and economic activity.

The types of arguments that the Corps made in *In re Upstream* are likely to reemerge in other future contexts as climate change causes sea levels to rise and intensifies weather events.²⁵² Hopefully, as laws continue to adapt to a changing climate, courts will resist the temptation to embrace entitlement-shifting rules as

²⁴⁹ *Id.*

²⁵⁰ *Id.* at 667–68.

²⁵¹ See Audie Cornish, *Texas Residents Sue Army Corps of Engineers for Flood Damage During Hurricane Harvey*, NPR (May 16, 2019), <https://www.npr.org/2019/05/16/724090002/texas-residents-sue-army-corps-of-engineers-for-flood-damage-during-hurricane-ha> [<https://perma.cc/MNS6-7ZCB>] (quoting a Professor's projection that “[a]t a conservative estimate . . . the government could find itself on the hook for more than \$150 million in damages”); Elliot Feldman et al., *Hurricane Harvey Litigation Update: Conflicting Opinions Spur Trial on Damages and Appeal*, JD SUPRA (Jan. 12, 2021), <https://www.jdsupra.com/legalnews/hurricane-harvey-litigation-update-8878629/> [<https://perma.cc/MPC6-ZPGX>] (describing the case's continued discovery phase for damages).

²⁵² For instance, in January 2019, hundreds of landowners along the Missouri River filed claims alleging that changes in the Corps's river management policies had caused increased flooding along the river. See generally Edwin H. Smith, *Flood Inverse Cases: Proving Actual Causation in a Physical Taking by Flooding Case Like Ideker in Light of St. Bernard Parish* (Jan. 2019), http://files.aliclc.org/thumbs/datastorage/skoobesruoc/pdf/CA007_chapter_31_thumb.pdf [<https://perma.cc/Y8PC-ZCNW>] (providing an overview of the *Ideker* Theory, which demonstrates that the Corps was responsible for the flood damage on landowners' property).

an adaptation strategy and will instead use liability and pliability rules to preserve appropriate incentives for government actors in these situations.²⁵³

C. Mass Property Entitlement Shifting to Benefit Special Interests

The most indefensible mass property entitlement-shifting rules and actions are those clearly driven by private special interests.²⁵⁴ To quote one scholar on these abuses:

Once a state is empowered to manipulate individuals' property rights, special interest groups will devote resources to get the state to manipulate property rights in their favor And other groups will expend resources resisting these changes. Such expenditures of otherwise productive resources (rent-seeking) lead to pure deadweight social utility loss.²⁵⁵

Indeed, governments sometimes attempt to misuse their government authority to shift large numbers of property entitlements and thereby transfer wealth to influential special interest groups.²⁵⁶ Such abuses are not only difficult to justify from an efficiency perspective because of their tendency to generate high demoralization costs; the partiality inherent in them also offends basic notions of objective procedural justice.²⁵⁷

As with many of the other types of property entitlement shifting highlighted above, using compensation requirements to convert these laws into pliability rules is often the most straightforward and effective way of improving them. Frank Michelman specifically noted that requiring governments to compensate citizens for losses of property interests helps to deter "disguised attempt[s] to redistribute deliberately" citizens' property interests.²⁵⁸ Numerous scholars have similarly argued that requiring just compensation—a liability rule approach—acts as a sort of social insurance, using taxpayer dollars to fund a system that protects all citizens against the risk of suffering government takings of their property and ensures they receive reasonable compensation in such cases.²⁵⁹

²⁵³ See *supra* notes 247–248 and accompanying text.

²⁵⁴ See *infra* notes 255–257 and accompanying text.

²⁵⁵ Leif Wenar, *The Concept of Property and the Takings Clause*, 97 COLUM. L. REV. 1923, 1936–37 (1997) (citing RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 143–45 (1985)).

²⁵⁶ See *infra* notes 260–294 and accompanying text.

²⁵⁷ "Objective procedural justice" is described in detail in Part II above. See *supra* notes 95–98 and accompanying text.

²⁵⁸ Michelman, *supra* note 54, at 1218.

²⁵⁹ See, e.g., BRUCE ACKERMAN, *PRIVATE PROPERTY AND THE CONSTITUTION* 45 (1977) ("[J]ust compensation by the government becomes the only remaining way to save the risk-averse from ac-

Unfortunately, the government actors and private stakeholders behind these egregious entitlement-shifting rules are often proactively seeking to shift entitlements as a means of extracting economic rents through the political process. The following are descriptions and brief analyses of three fairly recent examples of such attempts to shift large numbers of property entitlements to benefit influential private parties.

1. Retroactive Extension of Copyright Durations

Congress shifted millions of vested property entitlements from the general public to existing copyright holders—including some politically powerful corporations—when it enacted the Sonny Bono Copyright Term Extension Act (the Bono Act) in 1998.²⁶⁰ The Bono Act extended the duration of copyright protection by twenty years for individual authors—from fifty years after their death to seventy years after their death.²⁶¹ Congress applied this extension retroactively, meaning that it generally applied to all copyright interests still enforceable on the date the Bono Act first went into effect.²⁶² By giving copyright holders twenty more years of exclusion rights, the Bono Act shifted entitlements associated with affected copyrighted materials from the public to copyright holders for those additional years. Although these entitlements were mere open-access use rights when held by the general public, they became exclusion rights—*i.e.*, property entitlements—once they reached the hands of copyright holders.

Certain copyright holders had much to gain from the Bono Act's twenty-year extensions, so it is hardly surprising that special interest pressure appears to have heavily influenced its enactment.²⁶³ And because the copyrighted material at issue had not yet passed into the public domain, the retroactive exten-

cepting costs they might be willing to pay a good deal to avoid.”); Been, *supra* note 81, at 56–59 (discussing “the insurance rationale,” which “asserts that government should remedy the private market’s failure to provide insurance for legal transitions by providing compensation for such changes”); Lawrence Blume & Daniel L. Rubinfeld, *Compensation for Takings: An Economic Analysis*, 72 CALIF. L. REV. 569, 571–73 (1984) (advocating for “the payment of compensation” to property owners who have had their property taken by the government, which “may be conceived as insurance against the adverse effects of government regulation”).

²⁶⁰ Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998) (codified as amended at 17 U.S.C. §§ 302–304).

²⁶¹ 17 U.S.C. § 302(a).

²⁶² Sonny Bono Copyright Term Extension Act, 112 Stat. 2827.

²⁶³ See, e.g., Joseph P. Liu, *Copyright and Time: A Proposal*, 101 MICH. L. REV. 409, 421 (2002) (“Given the lack of strong policy support for term extension, Congress’s passage of the Bono Act can ultimately best be understood as resulting, in large part, from the lobbying efforts of the copyright industries (for example, film, music, publishing, software) which had much to gain from an extension, particularly a retroactive one.”).

sions survived constitutional scrutiny.²⁶⁴ Indeed, it is quite conceivable that Congress could similarly extend valuable copyright protections again at some point in the future.²⁶⁵

The Bono Act's copyright term extensions are difficult to justify from a social welfare perspective. They likely did not increase allocative efficiency because they delayed the public's free use of countless artistic creations for twenty years without materially strengthening future incentives to create new works.²⁶⁶ The demoralization costs resulting from the extensions were also likely substantial because of a widespread sense that special interest influence had contributed to the outcome. And the extensions were not justifiable on the basis of avoided settlement costs because the thousands of affected copyright holders would have had no compensation claims against the federal government had Congress simply allowed their copyrights to expire under existing laws. Still, despite these deficiencies, Congress enacted the extensions and shifted hundreds of thousands of property entitlements, and the threat of similar future copyright extensions remains.²⁶⁷

2. Attempts to Shift Property Entitlements in Subsurface Pore Space to Mineral Estate Holders

As technological advancements have increased the value of deep subsurface resources in recent years, there have arguably been attempts to shift property entitlements in these resources as well.²⁶⁸ "Pore space" is subsurface space between porous rock, which is often created after oil and gas extraction.²⁶⁹ Because there were relatively few conflicts over ownership rights in this space until deep horizontal oil drilling techniques were popularized about twenty-

²⁶⁴ See *Eldred v. Ashcroft*, 537 U.S. 186 (2003) (upholding the retroactive copyright extension provisions of the Bono Act); see also Paul M. Schwartz & William Michael Treanor, Essay, *Eldred and Lochner: Copyright Term Extension and Intellectual Property as Constitutional Property*, 112 YALE L.J. 2331 (2003) (describing and analyzing the Supreme Court's *Eldred v. Ashcroft* decision).

²⁶⁵ See, e.g., Sue Ann Mota, "For Limited Times": *The Supreme Court Finds the Copyright Term Extension Act Constitutional in Eldred v. Ashcroft, but When Does It End?*, 2005 B.C. INTELL. PROP. & TECH. F. 1, 4, <http://bciprf.org/wp-content/uploads/2011/07/30-SueAnnMotaIPTF2005.pdf> [<https://perma.cc/5L83-RZXZ>] ("Will Congress once again extend the Copyright Term retroactively again in twenty years? When exactly does 'limited times' end?").

²⁶⁶ See Christopher B. Seaman, *The Case Against Federalizing Trade Secrecy*, 101 VA. L. REV. 317, 382 (2015) (noting that there was "scant evidence" that the Bono Act's "extension would incentivize the creation of new works").

²⁶⁷ See *supra* notes 260–262 and accompanying text.

²⁶⁸ See *infra* notes 272–274 and accompanying text.

²⁶⁹ A few state statutes provide general legal definitions of "pore space" within their jurisdictions. See, e.g., N.D. CENT. CODE ANN. § 38-22-02 (West 2019) (defining "pore space" as any "cavity or void, whether natural or artificially created, in a subsurface sedimentary stratum"); WYO. STAT. ANN. § 34-1-152(d) (West 2020) (defining "pore space" more specifically as "subsurface space which can be used as storage space for carbon dioxide or other substances").

five years ago, laws specifically governing these entitlements in some states have never been expressly enacted or judicially established.²⁷⁰ Nonetheless, the predominant view has historically been that rights in this space are vested in surface rights holders.²⁷¹ Unfortunately, some private stakeholders in the oil and gas industry have recently sought to persuade legislatures to reject this prevailing rule and instead shift property entitlements in subsurface pore space to mineral rights holders.

One unsuccessful attempt at such mass entitlement shifting arguably occurred in 2011 when the Kansas House Committee on Energy and Utilities proposed a new state law to govern property rights in subsurface pore space.²⁷² Although the existing caselaw in Kansas involving pore space was quite limited, the leading view was that pore space rights in the state were vested in surface rights holders like they were in most other states.²⁷³ Kansas House Bill 2164, however, would have taken an opposite approach, vesting subsurface pore space rights in mineral rights holders.²⁷⁴

Although a law giving mineral estate holders subsurface pore space rights in Kansas might have generated some public policy benefits, it is doubtful that those possible benefits are what prompted the bill. Such a law would have concentrated pore space rights with a smaller set of parties, potentially making it easier to use subsurface pore space to store carbon dioxide from power plants and thereby combat climate change. Indeed, the potential usefulness of

²⁷⁰ See Larry Nettles & Mary Conner, *Carbon Dioxide Sequestration—Transportation, Storage and Other Infrastructure Issues*, 4 TEX. J. OIL, GAS & ENERGY L. 27, 30 (2008) (“[N]ot all jurisdictions have clearly defined parameters regarding the ownership of the subsurface pore space into which . . . carbon dioxide is stored.”).

²⁷¹ See Stefanie L. Burt, *Who Owns the Right to Store Gas: A Survey of Pore Space Ownership in U.S. Jurisdictions*, 4 JOULE: DUQ. ENERGY & ENV'T L.J. [i], [xi] (2016) (“[R]ecent case law and legislation follow the prevailing, majority rule that the surface owner owns the rights to pore space”); Bruce M. Kramer, *Horizontal Drilling and Trespass: A Challenge to the Norms of Property and Tort Law*, 25 COLO. NAT. RES. ENERGY & ENV'T L. REV. 291, 300 (2014) (“The case law to date . . . appears to suggest that the ownership issue be resolved in favor of giving ownership of the pore space or ‘rock’ to the surface owner.”); Tara K. Righetti, *Correlative Rights and Limited Common Property in the Pore Space: A Response to the Challenge of Subsurface Trespass in Carbon Capture and Sequestration*, 47 ENV'T L. REP. NEWS & ANALYSIS 10,420, 10,424 (2017) (“The majority of courts that have ruled on the issue have concluded that pore space is included in the surface estate.”).

²⁷² H.B. 2164, Reg. Sess. (Kan. 2013), http://www.kslegislature.org/li_2012/b2011_12/measure/documents/hb2164_00_0000.pdf [<https://perma.cc/SW5J-Z7LK>].

²⁷³ R. Lee Gresham & Owen L. Anderson, *Legal and Commercial Models for Pore-Space Access and Use for Geologic CO₂ Sequestration*, 72 U. PITT. L. REV. 1, 9 (2011).

²⁷⁴ *Id.* At least one writer has argued that Kansas’s bill deviated so far from existing pore space laws that it could have triggered a compensable taking or even violated the Takings Clause. See Trae Gray, *A 2015 Analysis and Update on U.S. Pore Space Law—The Necessity of Proceeding Cautiously with Respect to the “Stick” Known as Pore Space*, 1 OIL & GAS, NAT. RES. & ENERGY J. 277, 295 (2015) (“[T]he enactment of this statute might have implemented the Takings Clause . . . and it is also quite possible the statute would have been stricken for being unconstitutional.”).

this subsurface space for carbon storage prompted Professor John Sprankling to advocate for shifting to the government rights in all such space situated more than one thousand feet below the surface.²⁷⁵ As of 2021, however, there were still no active plans for large-scale carbon capture and storage in Kansas, so it is doubtful that this potential public benefit was the primary driver of support for Bill 2164.²⁷⁶

A more plausible explanation for the legislative push to allocate pore space to Kansas mineral rights holders involves political pressure from special interest stakeholders.²⁷⁷ The bill would have greatly benefited oil and gas industry players in Kansas had it become law, permitting them to negotiate solely with mineral rights holders and not with numerous surface rights holders for the rights needed to engage in certain types of horizontal drilling, natural gas storage, or disposal of fracking wastewater in deep disposal wells.²⁷⁸ In the process, the bill would have likely generated substantial demoralization costs and contravened distributive justice ideals by regressively redistributing wealth from thousands of individual Kansas landowners to a relatively small handful of wealthy and politically influential industry parties.

Kansas House Bill 2164 ultimately failed and, ironically, the Kansas Senate introduced a bill just one year later that would have instead solidified the approach taken by every other state legislature that has addressed the issue and made clear that subsurface pore space in Kansas is “vested in the several owners of the surface above.”²⁷⁹ Unfortunately, that bill also failed, so the risk of special interest-driven entitlement shifting involving subsurface pore space in Kansas remains, as it does in many other jurisdictions.²⁸⁰

3. Attempts to Shift Property Entitlements in Low Airspace to Drone Operators

One other example of how special interest pressure is driving attempts to shift large numbers of property entitlements is the ongoing regulatory battle

²⁷⁵ John G. Sprankling, *Owning the Center of the Earth*, 55 UCLA L. REV. 979, 982 (2008).

²⁷⁶ See Brian Grimmett, *What if We Belched Less CO2 into the Atmosphere by Stashing It Under Kansas?*, NPR (Sept. 4, 2019), <https://www.kcur.org/post/what-if-we-belched-less-co2-atmosphere-stashing-it-under-kansas-0#stream/0> [<https://perma.cc/KT5Y-JY2R>] (noting that “for now,” major carbon capture and storage facilities in Kansas are “all still an idea,” and that it is still not clear if or when the first such project will be built in the state).

²⁷⁷ See Gray, *supra* note 274, at 295 (noting that “[i]t is likely that the oil and gas industry was behind the attempted enactment” of Kansas House Bill 2164).

²⁷⁸ *Id.*

²⁷⁹ S.B. 271, Reg. Sess. (Kan. 2012), http://www.kslegislature.org/li_2012/b2011_12/measures/sb271/ [<https://perma.cc/EG77-CXYV>].

²⁸⁰ See *supra* note 279 and accompanying text.

over low-altitude airspace and small civilian drones.²⁸¹ Landowners' rights to exclude unwelcome objects from the immediate reaches of airspace above their land have been under intense attack over the past decade. In particular, large corporations interested in flying commercial drones through the low-altitude airspace above the nation's cities and towns have been aggressively lobbying Congress and the Federal Aviation Administration (FAA) to impose rules that would effectively shift property entitlements in that space from landowners to those corporations.²⁸²

Landowners have long held common-law rights to keep unwanted physical intrusions out of the low-lying airspace immediately above their land. Prior to the advent of modern aviation, the common law's *ad coelum* doctrine generally governed the allocation of airspace rights, vesting them in whomever held rights in the surface land immediately below.²⁸³ Then, relatively soon after airplanes began coursing the sky, the Supreme Court clarified the scope of landowners' airspace rights in the famous case of *United States v. Causby*.²⁸⁴ The *Causby* Court held that, although a literal interpretation of the *ad coelum* rule affording landowners indefinite airspace rights above their land up into the outer atmosphere had "no place in the modern world,"²⁸⁵ landowners still owned the "immediate reaches" of airspace above their parcels—"at least as much of the space above the ground as [they] can occupy or use in connection with the land."²⁸⁶ In the decades since *Causby*, landowners' property entitlements in the low-altitude space above their land have been repeatedly reaffirmed in condominium laws,²⁸⁷ laws governing overhang encroachments,²⁸⁸ and even in takings laws involving low-lying flight paths near airports.²⁸⁹

²⁸¹ See *infra* note 282 and accompanying text.

²⁸² See, e.g., David Morgan & Deepa Seetharaman, *Industry Lobbyists Take Aim at Proposed FAA Drone Rules*, REUTERS (Feb. 23, 2015), <https://www.reuters.com/article/us-usa-drones-lobbying/industry-lobbyists-take-aim-at-proposed-faa-drone-rules-idUSKBN0LS04R20150224> [<https://perma.cc/9TUR-LA2X>] ("Spending on lobbying by special interests that list drones as an issue surged from \$20,000 in 2001 to \$35 million in 2011 to more than \$186 million in 2014 . . ."); Will Yakowicz, *Amazon Has Spent Nearly \$10 Million Lobbying for Drone Delivery*, INC. (Mar. 21, 2016), <https://www.inc.com/will-yakowicz/amazon-spends-millions-lobbying-drone-delivery.html> [<https://perma.cc/R796-MWUJ>] (describing Amazon's heavy lobbying for drone laws and regulations favorable to the company, including extensive access to low-altitude airspace).

²⁸³ See *Ad Coelum*, BLACK'S LAW DICTIONARY, *supra* note 103. In Latin, the full maxim reads, "[c]ujus est solum, ejus est usque ad coelum et ad inferos," meaning "[w]hoever owns the soil owns everything up to the sky and down to the depths." *Id.* at *Legal Maxims*.

²⁸⁴ 328 U.S. 256, 264 (1946).

²⁸⁵ *Id.* at 260–61.

²⁸⁶ *Id.* at 264 (citing *Hinman v. Pac. Air Transp.*, 84 F.2d 755 (9th Cir. 1936)).

²⁸⁷ See Troy A. Rule, *Airspace in an Age of Drones*, 95 B.U.L. REV. 155, 183 (2015) ("[C]ondominium laws . . . protect property interests in low-altitude airspace with exclusion-based rules largely akin to those governing surface land.").

In recent years, however, a handful of large corporations, including Amazon and Alphabet, have aggressively lobbied the FAA for regulations that would effectively strip landowners of their rights to exclude unwanted drones from the low airspace above their property.²⁹⁰ If adopted, these regulations would give FAA-authorized companies the right to fly drones even at very low heights above private land and ignore any objections from landowners below.²⁹¹

Suddenly giving a single federal entity power to authorize private intrusions over the low airspace above nearly all of the nation's private land would effectively shift property entitlements in that space from millions of individual landowners to a few powerful companies—a move that would be difficult to justify on efficiency or justice grounds.²⁹² Such an approach would generate allocative inefficiencies by stripping landowners and municipalities of their ability to help govern uses of this scarce and highly location-specific resource. And because landowners have long held rights to exclude unwanted intrusions into the low-altitude airspace immediately above their land, the demoralization costs of such a move would be substantial.

By contrast, empowering states and local governments to condemn and compensate landowners for easements for drone flight corridors would promote greater allocative efficiency while also respecting existing property entitlements and thereby mitigating demoralization costs.²⁹³ Unfortunately, unless Congress enacts statutory language expressly affirming landowners' rights in low-altitude airspace, special interests could soon succeed in convincing the FAA to redistribute millions of dollars in value to them by dramatically shifting property entitlements in this space.²⁹⁴

²⁸⁸ See *id.* at 182 (“If a tree, building, or other structure affixed to the ground extends over the property line and encroaches into the column of airspace directly above a neighboring parcel, the law typically enforces a neighbor’s right to exclude the airspace encroachment.”).

²⁸⁹ Troy A. Rule, *Airspace and the Takings Clause*, 90 WASH. U. L. REV. 421, 432, 462–63 (2012) (describing the Nevada Supreme Court’s holding in *McCarran International Airport v. Sisolak*, 137 P.3d 1110 (Nev. 2006), that municipal height restrictions imposed to create “buffer” areas for airport flight paths amounted to permanent physical invasions of private property and thus triggered *per se* regulatory takings).

²⁹⁰ Troy A. Rule, *Drone Zoning*, 95 N.C. L. REV. 133, 171 nn.186–88 (2016).

²⁹¹ For a more detailed discussion of large corporations’ lobbying efforts with the FAA in relation to drones, see *id.* at 171.

²⁹² For a more complete cost-benefit analysis of property laws governing low-altitude airspace, see Rule, *supra* note 287, at 186–94.

²⁹³ See Rule, *supra* note 290, at 171–72 (advocating for “strengthening and clarifying landowners’ property interests in” low-altitude airspace).

²⁹⁴ Senator Mike Lee of Utah introduced a bill in late 2019 that, among other things, seeks to affirm and clarify landowners’ rights to exclude civilian drones from the immediate reaches of airspace above their land. See Press Release, Mike Lee U.S. Sen. for Utah, Sen. Lee Introduces Drone Integration and Zoning Act (Oct. 16, 2019), <https://www.lee.senate.gov/public/index.cfm/press-releases?ID=B12FA932-FF40-4862-ACDB-A4210CF5D716> [<https://perma.cc/Y63T-9RCD>].

CONCLUSION

Entitlement shifting has been occurring for centuries but is seldom acknowledged in analyses involving Calabresi and Melamed's framework of property rules and liability rules. Unlike liability rules, which toggle between property rule and liability rule protection over time, entitlement-shifting rules allow entitlements to shift from one entitlement holder to another under certain conditions. Although some types of entitlement-shifting rules are common and widely accepted, others are baffling outliers—antiquated common-law doctrines and divisive statutory oddities that subsist in the gaps and crevices of modern law.

Most property entitlement-shifting rules are legitimate attempts to increase allocative efficiency by reassigning entitlements to higher-valued users—a facially valid public policy goal. Others, however, pursue that goal in ways that are inefficient and unjust. Some of the oldest entitlement-shifting rules in the common law could be more efficiently restructured as liability rules, but constitutional restrictions on private takings appear to deter many courts and legislatures from embracing that approach. Ironically, perpetuating these rules in their entitlement-shifting form often produces outcomes that are less efficient and equitable than compensated private takings would be.

The most troubling entitlement-shifting rules are those that shift large numbers of property entitlements as a means of shielding government entities from liability or of redistributing wealth to special interests. Although takings laws place some constraints on such abuses, their threat persists in certain contexts and could grow as technological innovation and climate change create ever more competition for the planet's scarce resources. Hopefully, future research efforts focused on identifying resources that are susceptible to mass entitlement shifting and more clearly defining property entitlements in those resources will help to ensure that the nation's vast wealth of assets is allocated in just and efficient ways in the years to come.

