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A New Time for Denominators - Toward a Dynamic Theory of Property in the Regulatory Takings Relevant Parcel Analysis

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This Article explores the question of how the courts should calculate the denominator in the just compensation equation. The denominator is the amount of property a claimant owns, against which the effects of regulation will be measured. If a landowner owns a single acre that is severely regulated, the takings fraction for the amount of property taken compared to that owned will approach one. If, on the other hand, the landowner owns 100 acres and only one is regulated, the amount of harm is only 1% in comparison to the total amount owned. This Article advocates a paradigm shift in the Supreme Court's Takings jurisprudence on the denominator question. While many commentators have struggled with the issue of whether the government taking $1.00 from a homeless person should be treated differently than taking $1.00 from a millionaire, none has satisfactorily explained how the context of the taking and the landowner's total holdings are relevant to the takings analysis. Richard Epstein says they are irrelevant; the taking is the same regardless of the homeless person or the millionaire's total or past holdings. The Court has said there is a difference but has not given any kind of satisfactory justification. This Article attempts to justify the distinction with insights from traditional property law.

In particular, the Article argues the Court should treat large landowners differently than small landowners in making the denominator determination, even though the large landowner may no longer own any neighboring land. In basing the argument on a little-known nineteenth-century lateral support case, in which a landowner was not entitled to damages for harm because his own actions made himself vulnerable to the damage, the Article explores the question of

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the landowner whose severance of property makes her more vulnerable to the harm caused by a new regulation.

I. INTRODUCTION

Despite the United States Supreme Court's 25 years of fierce forays and rapid retreats in the battle over property rights and the Takings Clause, two intractable theoretical problems have eluded the Court's attempts to provide guidance for state actors as to when a regulation will, in the words of Justice Holmes, "go[] too far." Those two problems lie in identifying the relevant parcel against which a property restriction will be weighed (i.e., the parcel as a whole, relevant parcel, or denominator), and in determining the relevance of the timing of a regulation when analyzing the extent and reasonableness of a landowner's expectations of unregulated use for compensation purposes. The first is a question about how we identify the quantum of property "taken" by a regulation; is it one toothpick out of a very large bundle of property rights, or is it the entirety of a relatively small
bundle? The second is a question about the fairness of changing land-use regulations midstream, so that a person who purchased land under one regime might be entitled to compensation when a new, stricter regime significantly diminishes the uses she can make of her land. These two issues merge together when takings jurisprudence demands that we identify the relevant parcel at some specific regulatory moment in time.

To date, the relevant parcel analysis has been a static snapshot of the property owner's holdings and her expectations for future development at a single point in time—when the regulation goes into effect or is applied to her land (i.e., the regulatory moment). The parcel determination requires identification of the relevant denominator in both physical and conceptual space—its size and dimensions as well as the legal use and development rights that are attached to it at the regulatory moment. But while courts have wrestled for nearly 25 years with identifying the physical and conceptual parcel, they have generally ignored, until recently, the temporal aspect of the timing of the regulation as it relates to a landowner's holdings over time. Traditionally, this timing issue has been limited to a determination of whether the relevant parcel was acquired prior to the regulatory moment, and to a determination of the consequent expectations a landowner might form of unrestricted development opportunities. Because the timing calculation has almost always limited the relevant parcel to the ownership interests at the time the regulation takes effect, the relevant parcel determination has become a calculation of a static, independent condition. Once the parcel has been determined, courts look at the effects of the regulation on the parcel at the moment after enactment.

Identifying the parcel at the time of regulation, however, obscures the way property ownership is a dynamic process in which actions prior to enactment of the regulation, which reduce or increase a landowner's susceptibility to harm from the regulation, can be an important variable in

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5 The physical aspect of the relevant parcel analysis has generally consisted of a horizontal and a vertical element, the horizontal element being the number of acres that will be deemed the relevant parcel and the vertical element being the separation of the estate into airspace, surface, subsurface, and mineral rights. The functional or conceptual aspect is the severance of the property into different strands or property rights in the bundle, such as the rights to exclude, alienate, develop, possess, and use the property.

6 The question of when a landowner can sue for inverse condemnation depends in part on the timing of the regulation as compared to other development stages, such as purchasing the land, platting it, and applying for and obtaining permits in the standard example of land development. The doctrine of vested rights holds that a landowner may sue in inverse condemnation if she is far enough along in the development process to have relied to her detriment on a particular statutory and regulatory scheme. See generally STEVEN EAGLE, REGULATORY TAKINGS, § 11-2, 704-33 (2000).

7 The timing issue is most often analyzed when the courts are considering a landowner's reasonable investment-backed expectations just before a regulation defeats them. See, e.g., Palazzolo, 533 U.S. at 632–33 (O'Connor, J., concurring) ("[T]he regulatory regime in place at the time the claimant acquires the property at issue helps to shape the reasonableness of those expectations.").

8 There is a minor exception for fraud. See Broadwater Farms Joint Venture v. United States (Broadwater Farms), 35 Fed. Cl. 232, 240 (1996) (finding "no indication that plaintiff disposed of the property in anticipation of a takings claim").
whether a regulation goes too far. The United States Supreme Court modified slightly its position that the timing of the regulation is a fixed determinant when it rejected the categorical rule that no recovery is allowed if the land is acquired after the regulation is enacted. The Court looked forward, past the regulatory moment in the unusual postregulation acquisition case of Palazzolo v. Rhode Island (Palazzolo). The fairness involved in denying a categorical rule, however, calls for a temporal symmetry—the Court should look backwards at landowner actions that occurred before the regulatory moment in determining regulatory impact. It should relinquish its position that acquisition of land before a regulation is enacted means a landowner is a passive, innocent victim of the harms of regulatory change. While not all landowners who purchased land before a regulation limited their uses will be entitled to compensation under our federal takings jurisprudence, there exists a presumption that prior purchasers are all equally innocent in bringing about the change and that, therefore, the only constitutional concern is the direct impact of the

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9 John Echeverria noted the quandary the Court has created in identifying the relevant parcel:

On the one hand, a rule that ignored the full extent of the owner’s original ownership would encourage land developers to sell off developable portions in order to manufacture takings claims. Treating owners who develop their property at one time in the same fashion as owners who develop and sell off their property in pieces would produce equal treatment of owners who, arguably, are similarly situated. On the other hand, if an owner sells off pieces of property without regard to and prior to the adoption of a new regulatory regime which allegedly effects a taking, the argument for strict application of the parcel rule based on the risk of strategic behavior is less compelling.


A number of commentators have mentioned the issue of preregulation sale of land and whether it should be included in the relevant parcel. They also question whether strategic actions of landowners should factor into the takings analysis, though none has taken the explicit stand that, in most instances, preregulation sales of land are relevant in the takings analysis. See, e.g., Steven J. Eagle, Palazzolo v. Rhode Island: A Few Clear Answers and Many New Questions, 32 Envtl. L. Rep. (Envtl. L. Inst.) 10,127, 10,136 (2002) (noting the unfairness of treating landowners differently based on the timing of the regulation); John D. Echeverria, A Preliminary Assessment of Palazzolo v. Rhode Island, 31 Envtl. L. Rep. (Envtl. L. Inst.) 11,112, 11,121 (2001) (questioning the extent to which a landowner’s lack of investment-backed expectations may defeat a takings claim; emphasizing the role that the timing of a restriction plays in this issue); Benjamin Allee, Drawing the Line in Regulatory Takings Law: How a Benefits Fraction Supports the Fee Simple Approach to the Denominator Problem, 70 FORDHAM L. REV. 1957, 1970 (2002) (emphasizing fairness in the inquiry into whether the landowner had preregulation intent to exercise certain property interests); Marc R. Lisker, Regulatory Takings and the Denominator Problem, 27 RUTGERS L.J. 663, 722-23 (1996) (noting that a landowner’s knowledge that property is subject to regulations is extremely important in the analysis).


12 I use the term “innocent” not in terms of moral guilt or even criminal responsibility, but instead as being disconnected in every way from the chain of events that eventually led to regulations or permit denials for which a landowner is claiming harm and compensation.

13 By “harms” I mean limitations in use and development rights, restrictions on the exercise of certain property rights, and the decline in economic value that are often attributed to the effects of regulation.
regulation on the land's uses and value. Equal innocence in causing the regulation translates into equal rights to compensation for equal harms. I argue in this Article, however, that not all landowners who purchase before a regulation is enacted are innocent and therefore deserving of compensation even when the harms are uniform. To support this claim, I propose that the Court look more closely at the dynamic nature of property ownership over time in the relevant parcel analysis. In doing so, the Court will find that the denominator and the timing issues can be integrated in a principled and coherent manner.

The most-cited concern with looking backwards to actions by landowners before a regulation is enacted is that doing so raises the possibility of treating similarly situated landowners differently. Hence, the retiree to Florida who buys a single lot for construction of his retirement home and the large developer who has developed and sold off all but one remaining lot might be treated differently if construction permits are denied for each lot and prior actions are taken into account. Because each landowner may own only that one lot, and may ultimately suffer the same economic loss—even a 100% economic loss—courts and commentators reasonably argue that both should be treated equally in a takings calculation. Under the Court's current rules, the denominator would be calculated to be the single lot owned by each at the moment of permit denial. But I would suggest that these two landowners are not similarly situated when we view their use and ownership of land over time, when we recognize that value is not determined by reference to a static set of land uses, and that any notion of fairness cannot be determined by a snapshot view of events divorced from their temporal and physical surroundings. Ironically, some commentators have criticized the parcel-as-a-whole rule because it "discriminates against those who happen to have a larger group of property

14 What I am arguing is that we should not assume that a regulation that is applicable to multiple parcels of land would demand compensation for every landowner who owned the land before the regulation went into effect. Instead, other factors may warrant noncompensation for certain landowners if their preregulation activities made the situation worse. Just as there should be no categorical rule of noncompensation for postregulation acquisition, there should be no categorical rule of compensation for preregulation acquisition.

This Article suggests that it would be unreasonable, unfair, and discriminatory to treat different landowners the same because we have failed to recognize their evolving actions and land holdings. The Florida retiree and the land developer are not equally innocent victims of regulatory harm.

The Court's current rule, which seems to be an implicit adoption of federal circuit and state court decisions on an issue that it has not directly explicated, appears to establish a bright-line rule. The total relevant property owned at the regulatory moment is deemed to be the appropriate quantum of property to be used in the takings calculation. But like most bright-line rules, it risks being over- and under-inclusive. In many cases the relevant parcel determination, which is often made as an initial threshold matter, actually makes or breaks a case. Despite its core relevance, the Supreme Court has failed to develop a rule, standards, or even guidelines that might treat landowners more fairly because reliance on bright-line rules often seems more equitable, and no principled theory has been suggested for changing the rule, or for justifying doing away with it altogether.

The current approach is inequitable for numerous reasons discussed herein, and I ultimately favor a certain amount of fluidity in takings calculations (or "muddiness" as some have called it). Doing away with a bright-line rule allows for more case-specific considerations of fairness and can avoid slippery slope problems by adoption of a set of parameters within which the parcel determination can be maintained and philosophically justified. Moreover, gut-level fairness is still the ultimate criteria behind regulatory taking doctrines and Justice Holmes's magic threshold of holding accountable regulations.

The current approach to the denominator issue is also incoherent and illogical. To the extent prior actions of landowners that make themselves more vulnerable to regulatory harm are excluded from the denominator determination, horizontal and vertical severance issues are profoundly in tension with rules of fairness and equity. Additionally, to the extent functional severance of the relevant parcel into discernable rights—like the rights to exclude, descent, and devise—is tied to economic value, the Court's rules threaten to undermine our private property regime. And finally, a snapshot theory of regulatory takings that ignores the dynamic nature of property over time artificially attributes harm to a regulation when, in fact,
the harm is the result of a complex series of events and actions to which the state must respond if it seeks to maintain its legitimacy.  

In formulating a theory for addressing the relevant parcel problem and the timing problem, I look to other areas of property law for a different way of thinking about the impact of regulations on property rights, primarily the common law of lateral support, unity of title, and quiet enjoyment. In particular, I propose that courts look to the voluntary actions of landowners who sever their property—either physically, conceptually, or temporally—as relevant factors in determining whether a land-use regulation goes too far. Courts generally ignore earlier property holdings and prior sales when determining the relevant parcel, as though the odometer were set back to zero at the time a regulation goes into effect. A landowner’s property rights are thereby viewed as static holdings into which a new regulation causes a sudden restraint for which compensation may often be required. Instead courts should look to the dynamic aspects of use and ownership of land over time to help judge the real effects of post hoc regulation and to identify the relevant parcel. In simplistic terms, we should look to the load the camel was bearing before the final straw broke its back.

This Article is not intended to be a thorough exposition on the law of regulatory takings, especially since the field is already saturated with an impressive array of perceptive and important scholarship. Rather, it suggests a paradigm shift in how we think about two particularly difficult concepts and offers a theory that should move us beyond the impasse that has plagued these areas of regulatory takings jurisprudence for decades. To that end, after first explaining the two problems and why they have proved so difficult to resolve, the Article proposes a new theory of dynamic property and explains how it would apply in a variety of land-use contexts.

19 Regulations do not arise out of thin air. They are created in response to a series of activities and effects that are deemed generally disruptive of the common good. See Property and Expropriations, supra note 18, at 19–22.

20 Ironically, John Fee, who strongly advocates against a rule that would treat landowners differently, would adopt a rule for determining the relevant parcel based “not on the property owner’s actions or the extent of her ownership, but on the economic potential of the land itself.” Fee, supra note 16, at 1557. He would allow horizontal severance, but not functional, vertical, or temporal severance. Id. at 1557. I suggest that his theory cannot justify the distinction between horizontal and the other forms of severance, and that we must take the owner’s actions into account in all contexts.

II. A BRIEF HISTORY OF REGULATORY TAKINGS

The background for this discussion is, of course, the Takings Clause of the United States Constitution, which states: "nor shall private property be taken for public use without just compensation."22 Until 1922, the Takings Clause was interpreted to protect property owners only against governmental appropriations or invasions of land by requiring that if a governmental entity wanted to take or use private land, it had to exercise its power of eminent domain and pay for what it had taken.23 In the nineteenth

22 U.S. CONST. amend. V. The Takings Clause was applied to the states through the Fourteenth Amendment's Due Process Clause in Chicago B & Q R.R. Co. v. City of Chicago, 166 U.S. 226 (1897).

23 See, e.g., FRED BOSSELMAN ET AL., THE TAKING ISSUE: A STUDY OF THE CONSTITUTIONAL LIMITS OF GOVERNMENTAL AUTHORITY TO REGULATE THE USE OF PRIVATELY-OWNED LAND WITHOUT PAYING COMPENSATION TO THE OWNERS 114-23 (1973) (describing early Supreme Court Takings Clause jurisprudence and noting that, in the nineteenth century, the state and federal governments had to pay property owners whose lands were physically taken or otherwise physically harmed by the government's power of eminent domain, but that they did not have to pay when harm to property value or usability resulted from the exercise of police powers); John F. Beggs, The Theoretical Foundations of the Takings Clause and the Utilization of Historical Conceptions of Property in the Ecological Age, 6 FORDHAM ENVTL. L.J. 867, 870, 878 (1995) (describing Justice Blackmun's view that the Takings Clause was originally adopted "as a principally republican, communitarian phenomenon aimed at securing virtue and the common good of the local polity, and that therefore only direct physical takings by the federal government were intended to be compensable"); Byrne, supra note 21, at 94 ("Until 1922, virtually no court found a taking when regulation restricted use but amounted neither to outright expropriation nor to permanent physical occupation."); John F. Hart, Land Use Law in the Early Republic and the Original Meaning of the Takings Clause, 94 NW. U. L. REV. 1099, 1107–31 (2000) (describing a variety of regulatory controls on land use imposed by the colonies and early states and arguing that James Madison, author of the Takings Clause, knew about such regulation, "confronted the very phenomenon that has been wrongly supposed to be a peculiarly modern one: economically burdensome land use regulations," but nevertheless chose not to conflate regulation with appropriation when he drafted the Takings Clause"); John F. Hart, Colonial Land Use Law and its Significance for Modern Takings Doctrine, 109 Harvard L. Rev. 1252, 1299-1300 (1996) [hereinafter Colonial Land Use Law] (analyzing the land-use regulations of colonial America and arguing that modern land-use regulation should not be subject to the Takings Clause contrary to popular modern legal thought; land-use regulations existed in colonial times, the framers of the Constitution knew this, but nevertheless they did not address regulatory concerns in drafting the Takings Clause); Edward J. Sullivan, The Taking Issue, 5 ENVTL. L. 515, 521-22 (1975) (noting that "[a]n examination of legal history in America and England shows that the [T]aking[s] [C]lause was specifically addressed to the problem of confiscation, rather than regulation, of property," but that Mahon changed the legal landscape regarding takings and became "the source of confusion over the taking issue today." (emphasis in original)); William Michael Treanor, The Original Understanding of the Takings Clause and the Political Process, 95 COLUM. L. REV. 782, 785 (1995) ("Even after the establishment of a compensation requirement, it applied only to interference with physical ownership, and government routinely acted in ways that diminished the value of private property without providing compensation."); William Michael Treanor, The Origins and Original Significance of the Just Compensation Clause of the Fifth Amendment, 94 YALE L.J. 694, 711 (1985) ("Madison seems to have taken a rather limited view of what legal rights such a clause created: He intended the clause to apply only to direct, physical taking of property by the federal government. Contemporaneous observers also viewed the Fifth Amendment in this way: It applied only to the federal government, it concerned direct takings of property, and did not, for example, bar the government from interfering in contracts."). For a different scholarly view, see
and early twentieth centuries, compensation cases centered exclusively on physical appropriations of land or physical invasions of land for the public welfare, and did not limit the rights of the government to regulate land, even when the regulation destroyed all use and value.\(^\text{24}\)

In 1922, however, the Takings Clause was radically redefined to also require payment for governmental regulations that were so restrictive of an owner's use, development, and possessory rights in land that the property rights which remained became virtually useless. In *Pennsylvania Coal Co. v. Mahon* (*Mahon*),\(^\text{25}\) Justice Holmes reasoned that:

> Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law. . . . [B]ut [w]hen it reaches a certain magnitude, in most if not all cases there must be an exercise of eminent domain and compensation to sustain the act.\(^\text{26}\)

Holmes equated the substantial infringement of the use of property by a regulation with the appropriation of ownership of land through an exercise of eminent domain.\(^\text{27}\) For Holmes, a threshold existed beyond which compensation would be required if a regulation "goes too far" in restricting a landowner's *use* of land because the effect of the restriction is just as debilitating as outright appropriation.\(^\text{28}\)

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\(^\text{24}\) Hadacheck v. Sebastian, 239 U.S. 394 (1915); Munn v. Illinois, 94 U.S. 113 (1894); Lawton v. Steele, 152 U.S. 133 (1894); Mugler v. Kansas, 123 U.S. 623 (1887); *Pumpelly*, 80 U.S. at 180–81.

\(^\text{25}\) 260 U.S. 393 (1922).

\(^\text{26}\) *Id* at 413.

\(^\text{27}\) Although the Takings Clause had always been interpreted to be a limitation on the power of eminent domain, it is not clear that the courts have limited the application of the expanded regulatory takings doctrine to situations in which the regulatory agency has the power of eminent domain. Not all governmental entities have eminent domain power, but many have regulatory power. Thus, insofar as regulatory takings is founded on an analogy to eminent domain, there is some question whether its reach should be limited to agency actions that could have been accomplished through eminent domain.

\(^\text{28}\) *Mahon*, 260 U.S. at 415.
For the next forty years, however, Holmes's vision of a constitutional check on the police power to regulate property remained relatively inchoate. Despite a couple of important challenges to regulations that were held to require compensation, the Court consistently gave great deference to governmental restrictions unless they involved physical invasion or total destruction of the property. Until the 1960s, challenges to overreaching government regulations were caught up in the complex mire of post-*Lochner v. New York* (*Lochner*) due process considerations, which were extremely deferential to government decisions. This level of deference continued throughout the Warren and the Burger eras, even as the Court was asked numerous times to refine the parameters of when a regulation would go too far. Its answer was as vague in 1960 as it was in 1922, when Justice Black wrote: "The Fifth Amendment's guarantee that private property shall not be taken for a public use without just compensation was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole." Justice and fairness, like going too far, gave courts very little guidance in a burgeoning regulatory state.

Finally, in 1978, in *Penn Central Transportation Co. v. New York City* (*Penn Central*), the Court attempted to give some substance to its rules on regulatory takings, articulating a three-part test for determining when a regulation would go so far as to require compensation and the exercise of eminent domain. Justice Brennan, writing for the majority, stated:

> In engaging in these essentially ad hoc, factual inquiries, the Court's decisions have identified several factors that have particular significance. 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, of course, relevant considerations. So, too, is the character of the governmental action.

This three-part *Penn Central* balancing test did not stand alone for long, as the next year the Court articulated a different, two-part rule in *Agins v.*

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30 *Goldblatt v. Town of Hempstead*, 369 U.S. 590 (1962); *United States v. Pewee Coal Co.*, 341 U.S. 114 (1951); *United States v. Causby*, 328 U.S. 256 (1946); *United States v. General Motors Corp.*, 323 U.S. 373 (1945); *United States v. Sponenbarger*, 308 U.S. 256 (1939); *Nectow*, 277 U.S. 183 (1928); *Miller v. Schoene*, 276 U.S. 272 (1927); *Vill. of Euclid v. Ambler Realty (Euclid)*, 272 U.S. 365 (1926). Arguably, these were due process cases, decided at a time when the Court was reluctant to develop principles that clearly distinguished between due process and just compensation claims and rules.

31 196 U.S. 45 (1905).

32 See *Ferguson v. Skrupa*, 372 U.S. 726 (1962) (upholding a Kansas statute prohibiting debt adjusting; giving great deference to the legislature's wisdom and refusing to find a due process violation where the court disagrees with the legislature's choice).


35 Id. at 124 (citations omitted).
Justice Powell’s incarnation of a regulatory takings test, at least in the case of a zoning ordinance, is that it goes too far if "the ordinance does not substantially advance legitimate state interests, ... or denies an owner economically viable use of his land." Although many courts and commentators have tried to make sense of these two different regulatory takings tests by arguing that the Penn Central test is appropriate for as-applied challenges to regulations and the Agins test is appropriate for facial challenges, no distinction has been respected by the Court. The Rehnquist Court not only has applied the Agins test to as-applied challenges and the Penn Central test to facial challenges, but it also has created a number of entirely new categorical rules for a variety of situations that meld parts of each test. The addition of new takings tests as well as a

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37 Id. at 260 (citations omitted).
39 See, e.g., Nollan v. Cal. Coastal Comm’n (Nollan), 483 U.S. 825 (1987) (finding a taking in the conditioning of a building permit on the creation of a public easement under the Agins “substantially advance a legitimate government interest” (or SALGI) prong); Lucas v. S.C. Coastal Council (Lucas), 505 U.S. 1003 (1992) (refusing to apply “harmful or noxious use” principle to coastal regulation but instead applying Agins’s definition of taking as the denial of all economic benefit); Dolan v. City of Tigard (Dolan), 512 U.S. 374 (1994) (analyzing a takings claim resulting from a required public easement by building on Nollan’s SALGI-based essential nexus standard to arrive at the rough proportionality standard); City of Monterey v. Del Monte Dunes, 526 U.S. 687 (1999) (using SALGI prong of Agins to examine the proper fact-finding role and instruction for a jury in a regulatory takings case post-Dolan).
40 See, e.g., Hodel v. Irving (Hodel), 481 U.S. 704 (1987) (finding the Indian Land Consolation Act effected a facial taking under Penn Central); Keystone Bituminous Coal Co. v. DeBenedicts, 480 U.S. 470 (1987) (holding the Pennsylvania Subsidence Act was not facially unconstitutional because of the public interest in maintaining a certain amount of coal beneath structures); Tahoe-Sierra, 535 U.S. at 321 (finding a moratorium on development did not constitute a per se taking and that whether a temporary regulation requires compensation should be determined using the Penn Central factors and not a per se rule).
41 See, e.g., Lucas, 505 U.S. at 1031–32 (using economic impact prong of Agins to create a categorical rule for 100% economic loss); Hodel, 481 U.S. at 717–18 (finding that § 207 as amended of the Indian Land Consolidation Act of 1983, which abolished the descent and devise rights of owners of fractioned Indian lands, violates the Just Compensation Clause as a categorical extension of the “character of the governmental action” prong of Penn Central); Loretto v. Teleprompter Manhattan CATV Corp. (Loretto), 458 U.S. 419, 441 (1981) (narrowly holding that a permanent physical occupation of property constitutes a compensable taking by the government); Kaiser Aetna v. United States (Kaiser Aetna), 444 U.S. 164, 179–80 (1979) (holding that a property owner’s right to exclude is in the category that requires compensation for a government taking; although the court applied Penn Central balancing, it created a near-categorical rule for core sticks).
general increase in scrutiny has led to numerous decisions awarding compensation for regulations that, purely under a deferential *Penn Central* test, probably would not have been ordered. Moreover, commentators have complained bitterly of the Court's increasing muddying of the waters with new tests and new levels of scrutiny, its elevation of property rights protections at the expense of public rights and the environment, and its complete unwillingness or inability to provide stable guidance to government regulators and lower courts as to how far government may go in restricting property rights.

On the other side, conservative justices and property rights activists have long argued that the *Penn Central* balancing test is too deferential to government, and that winning under *Penn Central* is near impossible. Some, like Richard Epstein and Roger Marzulla, argue that every limitation on the use and exploitation of property should require compensation, regardless of the fact that many parcels of land increase in value as a result of regulation. Others who are less absolute in their interpretations of the Takings Clause, like Justice Antonin Scalia, would severely limit regulatory changes to a narrow range of acceptable activities bounded by state-law nuisance rules or inherent limitations on property, leaving land-use controls primarily to the market and contract mechanisms.

Despite the different rules and the uncertainty, however, the focus of every regulatory takings analysis since *Penn Central* has been on the quality of the government's actions and its impact on the landowner. On the one hand, the Court looks to the government's actions to see how restrictive,
how important, how narrowly tailored, and how valuable the state’s interests are. On the other, it looks to the regulation’s effects on the landowner’s ability to use, enjoy, develop, and alienate her property. This latter analysis focuses particularly on the economic impact on the landowner and the regulation’s interference with the landowner’s reasonable, investment-backed expectations. Yet increasing levels of scrutiny may lead the Court to look more skeptically or more deferentially on one or the other side of the takings equation.

Between 1987 and 2000, the Court appeared to be moving toward greater protection of property rights and greater scrutiny of governmental regulations as Chief Justice William Rehnquist was able to piece together an unsteady majority. As a result of the shift, commentators feared that the Penn Central test was being swamped with exceptions, revisions, and general neglect. They argued that the Court was confounding the regulatory takings analysis with all sorts of new tests and ignoring basic public welfare issues. But most recently, in 2002, the Penn Central test was given new life in Tahoe-Sierra Preservation Council v. Tahoe Regional Planning Agency (Tahoe-Sierra) as the Court pulled back from what many viewed to be its extreme property-protectionist position. The Penn Central test has again been declared the most appropriate test for all but a small subset of unusual situations, though it is too early to tell if the decision in Tahoe-Sierra is a small roadbump in the general trend toward greater limits on government’s regulatory powers, or has charted a new course back toward the deference of the Warren Court era.

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48 This analysis comes under the “character of the government action” in Penn Central and the “substantially advance a legitimate government interest” (SALGI) prong of Agins. And while the Court has been relatively deferential in this test, usually adopting the same level of scrutiny as it applies to the public use requirement under eminent domain, there has been an elevation of scrutiny in certain cases, especially in the exactions context. See Dolan, 512 U.S. 374, 391 (1994) (holding that an exaction must be roughly proportional in nature and extent to the proposed use of the land); Lucas, 505 U.S. 1003; Nollan, 483 U.S. 825, 841 (1987) (holding that a reasonable nexus must exist between an exaction and a legitimate police power purpose). But see City of Monterey v. Del Monte Dunes at Monterey, Ltd. (Del Monte Dunes), 526 U.S. 687, 702 (1999) (narrowing scope of heightened scrutiny to exactions cases); Santa Monica Beach Ltd. v. Superior Court, 968 P.2d 993, 1003-07 (Cal. 1999) (state court agonizing over the relationship between the due process and just compensation requirements in a rent control situation); Machipongo Land & Coal Co. v. Pennsylvania (Machipongo IV), 719 A.2d 19, 23 (Pa. Commun. 1998) (state courts struggling with due process implications).

49 See Palazzolo, 533 U.S. 606 (2001) (5-4 decision with one concurring opinion and one opinion concurring in part and dissenting in part); Del Monte Dunes, 526 U.S. 687 (5-4 decision with one opinion in which four justices joined, concurring in part and dissenting in part); E. Enters. v. Apfel, 524 U.S. 498 (1998) (5-4 decision with one concurring opinion and separate opinion concurring in part and dissenting in part); Dolan, 512 U.S. 374 (5-4 decision); Lucas, 505 U.S. 1003 (two dissenting opinions filed and one separate statement); Nollan, 483 U.S. 825 (5-4 decision).

50 See supra note 21.


52 The Warren Court granted great deference to state and federal legislatures to explore regulatory policies that might affect property rights by soundly rejecting the substantive economic due process of the Lochner era. See, e.g., Ferguson v. Skrupa, 372 U.S. 726 (1962) (noting that while legislative bodies may make choices the Court deems unwise, the Court is...
Whether the Court is applying the *Penn Central* balancing test, the *Agins* test, or one of the categorical rules developed in the late 1980s and 1990s, two issues remain central to any regulatory takings analysis. The first is a determination of what property rights are taken by the challenged regulation. Inherent in that determination is a comparison of the rights taken with the property rights retained, what has come to be called the "takings fraction" (the rights taken or restricted are placed in the numerator and the total rights of the property owner are placed in the denominator). As the fraction approaches one, and the rights taken approach the total rights owned, the scrutiny on the government's justification for the regulation increases. Using the bundle of sticks metaphor that is common in property parlance,\(^5\) when the numerator is a small toothpick and the denominator is the entire bundle, the likelihood of the Court requiring compensation is small. Where the numerator is a large portion of the bundle, or cuts across every stick in the bundle, the likelihood of compensation increases until it becomes mandatory if certain core sticks or the entire bundle is taken.\(^5\)^\(^4\)

The second issue is the timing of the regulation with respect to the property rights of the landowner. Implicit in this determination is an assumption that if a landowner purchases land that is already heavily regulated, at a devalued price, she may not seek compensation for the effect of the regulation because she did not lose any rights that she in fact possessed.\(^5\)^\(^5\) This is termed the "notice rule," which presumes that a person cannot complain of restrictions to land use when she bought the land knowing of those restrictions. She never possessed the right to be free of regulation, presumably did not pay for unregulated property, and therefore cannot complain if prior regulations restrict her ability to use or develop her land. She took with actual or constructive notice of the limitations.\(^5\)^\(^6\) Conversely, an owner of unregulated land has a better takings claim if a new regulation is enacted after acquisition that severely devalues or restricts his once free land. This timing determination generally looks to see who was the owner of record at the time the regulation was enacted. However, the

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\(^5\)^ See *WESLEY HOHFELD, FUNDAMENTAL LEGAL CONCEPTIONS* 27–31 (1923).

\(^4\)^ The bundle of sticks metaphor is often used by judges when analyzing the denominator question. *See*, e.g., *Fla. Rock v. United States*, 45 Fed. Cl. 21, 42 (1999) ("[T]hough it is true that not every strand in the bundle was cut, ... the thin handful which remains little resembles the full sheaf once held by Florida Rock. It strains the Court's sense of logic to suggest this well-pruned parcel is still whole." (internal citations omitted)).

\(^5\)^ *See Palazzolo*, 533 U.S. 606, 626–30 (2001) (noting that although notice is relevant, a "claim is not barred by the mere fact that title was acquired after the effective date of the state imposed restriction"); *Forest Products Inc. v. United States*, 177 F.3d 1360, 1366–67 (Fed. Cir. 1999) (espousing a reasonableness standard for expectations and noting that "one who buys with knowledge of a restraint assumes the risk of economic loss"); *Ciampitti v. United States (Ciampitti)*, 22 Cl. Ct. 310, 320–21 (1991) (noting that appellant's investment-backed expectations were not reasonable because he was aware of the regulations that would adversely affect development prior to his purchase).

\(^6\)^ Called the "notice rule" in scholarship, its most detailed exposition is in *Palazzolo*, 533 U.S. at 626–30.
analysis was complicated in 1992 by *Lucas v. South Carolina Coastal Council* (*Lucas*)\(^57\) and in 2001 in *Palazzolo*.\(^58\) *Lucas* held that changes in ownership that overlapped the regulation, even though arguably only changes in corporate structure, affect the relevant parcel calculation.\(^59\) Conversely, *Palazzolo* held that such changes did not affect the takings calculation.\(^60\) Finding the right moment to measure the relevant parcel to determine the effects of government regulation has been an issue overshadowing numerous decisions, but the Court has yet to tackle it head-on.

Both the relevant parcel and the timing determinations must be made in every regulatory takings calculation. Under the Court's current analysis, however, these two determinations, while possibly quite difficult for a court to make in any given instance, are viewed independently of one another.\(^61\) The Court first determines the regulatory moment, then it calculates the relevant parcel, and then it analyzes the effect of the regulation on the parcel. Yet this analysis arguably focuses only on the one-way impact of regulation on a relatively static bundle of property rights. There is little room in the Court's jurisprudence to think more dynamically about the interaction between regulation and property ownership. In all fairness, the Court should look at how the landowner's actions may influence the way the regulation affects the land.

Although impact of a regulation on a landowner may vary depending on different circumstances of each landowner, the Court's current approach to determining the relevant parcel is inflexible. This relatively static analysis in no way seeks to uncover the dynamic series of actions that a landowner may have taken before the regulation was enacted which made her vulnerable to harm from the regulation or the way in which certain behavior by landowners may have increased the regulatory burdens.\(^62\) By considering the

\(^{57}\) In *Lucas*, Justice Scalia acknowledged that there are two relevant time periods for a regulatory takings analysis: when the state's background principles of property law are settled and when the regulation is passed. To the extent the regulation limits a property right that existed at the former time, compensation will be due. *Lucas*, 505 U.S. 1003, 1027, 1030 (1992).

\(^{58}\) In *Palazzolo*, the question was whether postregulation acquisition of the land would preclude an inverse condemnation claim and a majority of the court said no, though for different reasons apparently. 533 U.S. at 618, 639.

\(^{59}\) Justice Blackmun points out that David Lucas is a "contractor, manager, and part owner" of the Wild Dune development on the Isle of Palms and had lived there since 1978. In 1986, however, he purchased two of the last four pieces of vacant property, which constituted a change in ownership from the development corporation of which Lucas was a part-owner, to David Lucas as an individual. Justice Scalia's majority opinion makes no note of the nominal change in ownership; rather, the analysis begins with Lucas's purchase in 1986. *Lucas*, 505 U.S. at 1038. Although there were three intervening owners of lot 22, the record does not state whether Lucas was in any way involved in these prior purchases or why, if he was not involved, the prior owners did not retain the land and try to develop it themselves. *Id.* at 1038 n.3.

\(^{60}\) 533 U.S. at 626–27.


\(^{62}\) For example, a landowner may create wetlands by dispelling surface water from one parcel onto another, or a landowner may fill previously existing wetlands, so that in either instance a regulation is necessary to prevent the destruction of critical wetlands. The
relevant parcel as having a robust temporal component, however, we apply a takings calculation that more coherently accommodates the fact that property rights are only meaningful over time. Because we enjoy and exploit property rights in time and over time, recognizing the dynamic character of property would help resolve the intractable denominator and timing problems.

III. The Denominator Problem

Calculating the relevant parcel or identifying the denominator has been a conceptual difficulty since the birth of regulatory takings in 1922 and has remained intractable through the Court's most recent decisions in Palazzolo and Tahoe-Sierra. Put most succinctly, the problem lies in identifying the bundle from which a particular property right has been taken. The Court of Federal Claims explained it this way:

Before the court can determine whether the regulation had the effect of taking all economically viable use of the property, the property needs to be defined. Since the test for regulatory taking requires the court "to compare the value that has been taken from the property with the value that remains in the property, one of the critical questions is determining how to define the unit of property 'whose value is to furnish the denominator of the fraction.'"

But identifying the denominator of the takings fraction is not simple. Justice Brandeis, in his dissent in Mahon, noted that "values are relative" and "[t]he sum of the rights in the parts can not be greater than the rights in the whole." Frank Michelman, in his important 1967 Harvard Law Review article, labeling it for the first time the "denominator problem," noted that the "difficulty is aggravated when the question is raised of how to define the destruction of man-made and natural wetlands must be reduced because the growth of cities and towns has placed greater and greater strains on the water supply in most parts of this country.

Although we often think of property in terms of possessions and physical objects which we own at a certain time, the property rights protected by law are rights that have value only because they are stable and enduring, because when I sell them to another, the grantee needs some assurance that she receives the same thing I sold. The same cannot be said about other rights that may fluctuate with the economic, regulatory, and legal marketplaces.

I use the terms "relevant parcel" and "denominator" interchangeably to indicate the sum total property rights against which the takings analysis should be made. The "parcel-as-a-whole" rule is one approach to determining the appropriate level of property rights, but it is not the only rule. See Coast Range Conifers, LLC v. Oregon (Coast Range Conifers), 76 P.3d 1148 (Or. Ct. App. 2003), in which the Oregon Court of Appeals rejected the parcel-as-a-whole rule in state takings jurisprudence, while acknowledging that it did apply in the federal context. Id. at 1158.

The Court's most recent statement on the Takings Clause, Brown v. Legal Foundation of Washington, 538 U.S. 216 (2003), did not have to directly address the issue of the relevant parcel because it was dealing with laws requiring the use of interest on lawyer trust funds for funding legal aid.


Mahon, 280 U.S. 393, 419 (1922).
'particular thing' whose value is to furnish the denominator of the fraction.”

The difficulty encountered in the denominator calculation is whether to consider, for example, a landowner's ten acres, of which nine are developable and one is an undevelopable wetlands, or just the one restricted acre. If the full ten acres are considered the relevant parcel, then the landowner suffers only a ten percent loss in value of the entire lot. If only the one acre serves as the denominator, the landowner may suffer a complete loss. Not surprisingly, landowners advocate for the smallest possible denominator while the government advocates for the largest denominator.

The relevant parcel calculation is quite simple for property owners with small holdings—one acre of wetlands, a single eagle feather, or a residential lot that has been downzoned—and cases involving unified small holdings generally do not raise the issue explicitly. It becomes much more controversial when a landowner owns many acres of land, only some of which are restricted by a new regulation. The underlying question facing courts making the relevant parcel determination is whether it is fair or constitutional to treat small landholders differently than large landholders when a regulation has the same impact on the same-sized parcel of land, but the remainder of unregulated landholdings are vastly different.

And the Court's current rule, if we could call it that, is both vague and unhelpful. On the one hand, the Court has repeatedly stated that it will look at the entire parcel, or the parcel as a whole, when considering the effects of a regulation. Thus, it will not sever airspace rights from the rest of the fee simple interest in land, nor will it sever 17 acres of wetlands from one acre of uplands. In refusing to accede to the landowner's characterization of the property as only that which is ultimately regulated, the Court has frequently repeated that it always looks to the parcel as a whole. But in fact it has not always adhered to that rule, having severed subsurface rights in *Mahon*.

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73 *Penn Central*, 438 U.S. at 130–31; *Palazzolo*, 533 U.S. at 630–32.
rights to descent and devise in *Hodel v. Irving (Hodel)*, and the right to exclude the public from a dredged channel in *Kaiser Aetna v. United States (Kaiser Aetna)*. At the same time, it has chosen not to directly confront the issue of the relevant parcel in cases involving landowners who sold or partitioned their property before the regulation and then found themselves especially susceptible to harm because the entirety of the property they still owned was now heavily regulated. While the Court says it adheres to the parcel-as-a-whole rule, it has not actually applied the rule in difficult cases, nor explained the parameters of the rule when it has haphazardly applied it.

Moreover, there has been some question whether the Court was firmly behind the parcel-as-a-whole rule. Justice Scalia dropped a footnote in *Lucas* in 1992 calling into question the Court's commitment to the rule which raised some confusion among lower federal and state courts as to whether the rule remained viable. Justice Scalia suggested that where a diminution in property value is substantial but less than 100%, the parcel-as-a-whole rule might be rejected in order to view the regulation as an impermissible deprivation of the portion of property taken. Justice Kennedy later referred to the *Lucas* footnote as "express[ing] discomfort with the logic of this rule," though the Court ultimately strongly reaffirmed it in *Tahoe-Sierra*.

The discomfort with the rule comes from those who, like Justice Scalia, feel that taking a dollar from a homeless person is functionally equivalent to taking a dollar from a millionaire; or taking ninety-nine cents is the same as taking a dollar. However, many people are comfortable with a rule that acknowledges the relational character of property and that the character of a governmental action can be different for differently situated persons. The denominator question, therefore, not only raises issues of mathematical precision, but it fundamentally concerns issues of fairness and equal treatment which can only be adjudicated by acknowledging context and prior actions.

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76 444 U.S. 164, 179-80 (1979) (holding that landowners who developed an entire subdivision and marina were held entitled to compensation when the federal navigational servitude was applied to their newly dredged channel in a tidal pond that had been privately owned and was contiguous to the rest of their upland development).
78 *Lucas*, 505 U.S. at 1016-17 n.7; see also *Palazzolo*, 533 U.S. at 631 (expressing "discomfort" with measuring value of the whole parcel); Machipongo Land & Coal Co. v. Pennsylvania, 799 A.2d 751, 767 (Pa. 2002) (focusing on parcel as a whole).
79 *Lucas*, 505 U.S. at 1016-17 n.7. I would suggest that Justice Scalia's footnote is not a rejection of the parcel-as-a-whole rule so much as a criticism of the apparent result that 100% economic loss results in automatic compensation while 99% loss would not. That incongruity, justifiably, is problematic, though of course the line-drawing problem then raises its head. If 99% is so close to 100% that compensation should be required, then what about 95%, 90%, 80%, and so on? I suggest Justice Scalia was simply stating that under *Penn Central* balancing, 99% loss would also go too far and that therefore the outcomes would not be so significant. But this is not the first time my interpretation of judicial dicta deviates from the interpretation by others.
80 *Palazzolo*, 533 U.S. at 631.
81 535 U.S. 302, 331 (2002) (applying the parcel-as-a-whole rule while rejecting the lower court's division into temporal segments).
Today, courts and commentators tend to analyze the denominator in four ways: physically (both horizontally and vertically), functionally, and temporally. While all four raise complex issues for the courts, there have been few attempts to rationalize and define how these four dimensions of the relevant parcel should be made. None, however, adequately considers a landowner's actions over time, and particularly a landowner's preregulation severance which effectively diminishes the denominator, in making these determinations.

The following analysis of each of these four methods of categorizing the denominator notes both the practical problems that have plagued the courts in trying to develop rules on when severance is acceptable and when it is not. It also explores the conceptual incoherence in the idea of severance and the way that incoherence manifests itself in each context. While the Supreme Court and the lower courts have attempted to, or claimed to, adopt bright-line rules regarding how the relevant parcel is to be determined in space, time, and function, the problems inherent in line drawing as well as the problems inherent in not drawing lines can be identified. Though many critics advocate the muddy vagueness of takings doctrine, and I myself lean in that direction, the problem with the denominator is that neither bright-line rules nor muddy standards adequately acknowledge the underlying issue, which is that property rights are dynamic, ever-changing, and fundamentally in tension with the purpose and language of the Takings Clause.

A. Horizontal Severance

While the Supreme Court has not spoken directly on the issue of horizontal severance, numerous lower federal and state courts have. The question posed with horizontal severance is how to determine the size of the relevant parcel when a landowner owns one hundred acres, only ten of which are affected by a regulation. Is the denominator one hundred acres or ten acres? In general, the trend is to look to the largest parcel that is reasonably similar to the regulated lands. This “rule” has two obvious weaknesses: What constitutes similarly-situated or relevant, and at what point in time do we calculate the relevant parcel if the landowner has previously sold portions of land adjacent to or similarly situated to the now-regulated allegedly taken land?

One useful test for analyzing horizontal severance was articulated in the 1991 case of Ciampitti v. United States (Ciampitti). The United States Court of Claims was faced with a developer who had made seven separate purchases of land and had developed some, which were then sold. The developer was in the process of developing portions of the seventh purchase, which consisted of 45 noncontiguous acres, including approximately 14 acres of wetlands. Although Ciampitti sought a fill permit only for the 14 acres, which was denied, and then claimed a taking of those

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83 Property and Expropriations, supra note 18; Poirier, supra note 18.
acres, the court held that the entire 45 acres of purchase seven was the relevant parcel.\textsuperscript{85} As the court explained:

Factors such as the degree of contiguity, the dates of acquisition, the extent to which the parcel has been treated as a single unit, the extent to which the protected lands enhance the value of remaining lands, and no doubt many others would enter the calculus. The effect of a taking can obviously be disguised if the property at issue is too broadly defined. Conversely, a taking can appear to emerge if the property is viewed too narrowly. The effort should be to identify the parcel as realistically and fairly as possible, given the entire factual and regulatory environment.\textsuperscript{86}

The \textit{Ciampitti} factors of contiguity, date of acquisition, uniform treatment, and the like have been cited by numerous courts as relevant to determining the horizontal dimension of the relevant parcel even as they ignore the last elements—reminiscent of ad hoc balancing—the realistic and fair identification in light of the entire factual and regulatory environment.\textsuperscript{87} And \textit{Ciampitti} has been used primarily in the context of section 404 permit denials.\textsuperscript{88} These challenges occur when a landowner seeks a dredge and fill permit in order to develop and then sell the land, but is stalled at the first stage, before he can sell anything. Thus, at the regulatory moment (when the permit is denied) the landowner still often owns the entirety of the full parcel and therefore suffers only a partial taking of less than total loss in economic value of the entire lot.\textsuperscript{89} For instance, a landowner who owned 2,500 acres, sought to develop 62 acres, and requested a section 404 permit for 9 acres, was denied compensation when the court viewed the relevant parcel to be the 62 acres, not the 9 acres.\textsuperscript{90} Notably, however, it did not consider the relevant parcel to be the 2,500 acres, because only the 62 acre parcel was being developed and was therefore being treated similarly by the landowner.\textsuperscript{91} Where a landowner owns significantly more land than the

\textsuperscript{85} Id. at 320.
\textsuperscript{86} Id. at 318–19.
\textsuperscript{89} Of course, there are instances in which a landowner has already developed and sold off all nonregulated lands and is left with only the wetlands, now subject to regulation. The dynamic denominator rule for which this article advocates will account for exactly that situation. \textit{See Palazzolo}, 533 U.S. 606, 613 (2001) (after selling off parcels, Palazzolo was left with 20 acres, 18 being wetlands); \textit{Lucas}, 505 U.S. 1003, 1007 (1992) (After developing and selling off most of the lots in the Wild Dunes Development, Lucas was barred from erecting any permanent habitual structures on his last two undeveloped parcels.).
\textsuperscript{90} Forest Property, Inc. v. United States (\textit{Forest Property}), 177 F.3d 1360, 1366 (Fed. Cir. 1999).
\textsuperscript{91} Id. at 1365.
amount affected by the regulation, Ciampitti helps define the total amount that will be considered the relevant parcel.92

The lower courts are split, however, on whether land that was already developed and sold before the regulation went into effect can be accounted for in the relevant parcel calculation. In Ciampitti, the court excluded from the relevant parcel calculation those lands which were acquired in purchase seven in 1983, but were not still owned by Ciampitti in 1986 when the permits were denied.93 But the court gave no explanation or justification of its decision to exclude the sold parcels, nor did the issue matter under the particular circumstances of this case since adequate “relevant” land remained in purchase seven to offset the affected acreage.

Consistent with Ciampitti, most courts have refused to include lands previously sold in the relevant parcel. Although the landowner bought 311.7 acres in a single purchase, the court excluded 261 acres previously sold in 1968—four years before enactment of the regulation requiring a section 404 permit—from the denominator calculation in Palm Beach Isles Associates v. United States.94 The court found that because the 261 acres were separated from the remaining 50.7 acres by a road, and because Palm Beach Isles Associates “never planned to develop the parcels as a single unit,... [it would be] inappropriate to consider those transactions to have occurred in the context of the substance of a regulatory structure that was not in place at the relevant times.”95 Similarly, in Loveladies Harbor, Inc. v. United States (Loveladies),96 the United States Court of Appeals for the Federal Circuit excluded not only 199 developed and previously sold acres, but also 38.5 acres of land the State of New Jersey required to remain undeveloped through a settlement agreement that gave the landowner permission to fill and develop 12.5 acres.97 When the section 404 permit for the 12.5 acres was denied, the court in Loveladies held the relevant parcel to be only the 12.5 acres that were denied the permit and not the 250 acres the landowner had purchased originally, nor the 199 acres already sold. Most courts have excluded from the relevant parcel previously sold lands, especially lands developed and sold before the regulatory regime went into place.98

92 Walcek v. United States, 49 Fed. Cl. 248, 259, 261 n.21 (2001), aff'd, 303 F.3d 1349 (Fed. Cir. 2002); K & K Constr., 575 N.W.2d at 536-37; see also Brace, 51 Fed. Cl. 649 (using Ciampitti factors to limit relevant parcel to less than the total land owned); E. Cape May Ass’n v. Dep’t of Envtl. Prot., 777 A.2d 1015, 1025 (N.J. Super. Ct. App. Div. 2001) (same).
94 208 F.3d 1374, 1380-81 (Fed. Cir. 2000).
95 Id. at 1381.
96 28 F.3d 1171 (Fed. Cir. 1994).
97 Id. at 1181.
98 Forest Property, 177 F.3d 1360 (Fed. Cir. 1999) (deeming 62 acres of a residential subdivision the relevant parcel out of 2,500 acres when only the 62 were sold to plaintiff for a development that required a permit to fill 9.4 acres); Broadwater Farms, 35 Fed. Cl. 232 (1996) (deeming relevant parcel to be 27 lots in phase three of a 51-lot development, excluding the 24 lots of phase two already sold); Machipongo IV, 719 A.2d 19, 27 (Pa. Commw. Ct. 1998) (rejecting, in dicta, the idea of including previously sold lands because “[u]sing land once owned by the landowner to arrive at a denominator ignores that the property no longer belongs to the landowner to do with as he pleases”); see also Volkema v. Dep’t of Nat’l Res., 542
A few courts, however, may have included previously sold land in the relevant parcel calculation. Whether they have done so is somewhat unclear for various reasons. For example, in the early case of *Deltona Corp. v. United States*, the court did not specify whether the denominator included all five phases of the development, two of which had been completed and sold prior to the 1972 Clean Water Act amendments, or only the three developed after 1972. The court found no taking from denials of section 404 permits for portions of two later phases because all of the third parcel and portions of the other two were developable. In an unusual exactions situation, the Maryland Court of Appeals found that the relevant parcel included lands previously developed and sold, but the issue was over development agreements to reserve a certain amount of acreage as recreational and open space to serve the entire three phases of the development, which the landowner had put off until the last stage. When he was then forced to leave a significant proportion of the final phase undeveloped, and then sought compensation for a taking, his case was rejected primarily because the open space requirement served more acres than those he still owned in the last phase. And in *Machipongo Land & Coal Co. v. Commonwealth (Machipongo V)*, the Pennsylvania Supreme Court adopted a "flexible approach" that would look at "the timing of transfers, if any, in light of the developing regulatory environment" as one of many factors. Though the court remanded the case for factual determinations necessary to making the denominator determination, this somewhat more inclusive approach might allow for consideration of previously sold lands.

It would seem, however, that the lower courts considering whether to include previously sold lands in the denominator are not likely to look broadly at all previously owned lands of a takings claimant, but instead focus on lands strategically sold in anticipation of greater regulatory burdens. In *Broadwater Farms Joint Venture v. United States (Broadwater Farms)*, the court explicitly refused to include in the relevant parcel analysis the lands in the second phase of a project, though it included lands in the third phase, because the second phase had been developed and sold before the Army Corps of Engineers became involved in the matter. The court would not include the lands that had already been sold because it

N.W.2d 282, 285 (Mich. Ct. App. 1996) (defining relevant parcel as 24.6 acres of 45 acre tract that were not developed prior to passage of state wetland protection act).

657 F.2d 1184 (Ct. Cl. 1981).

100 At least one court believed it was the entire 10,000 acres of all five parcels that was included in the denominator. *Machipongo IV*, 719 A.2d at 27.

101 City of Annapolis v. Waterman (*Waterman*), 745 A.2d 1000 (Md. 2000).

102 Arguably, however, *Waterman* was decided on contract and equity grounds. Inclusion of the previously developed and sold parcels logically followed from the developer's promise to leave a certain amount of open space in order to obtain the development permits for the first four phases. *Id.* at 1002.


104 *Id.* at 768.


106 *Id.* at 239-40.
ha[d] no indication that plaintiff disposed of the property in anticipation of a takings claim. It would not realistically reflect plaintiff's property interest to charge it now for property it did not own at the time of the taking.107 But in a recent Rhode Island case, what looked like strategic severance was rewarded with an order of compensation.108 The most accurate statement of the courts' treatment of previously sold land, therefore, is a presumption against considering land already sold prior to regulation or permit denial, with perhaps an exception for strategically severed lands.109

But is there any legitimate reason to exclude already severed lands when the severance makes the landowner more vulnerable to harms from the regulation regardless of the landowner's motives? Why would consideration of previously severed lands not realistically reflect a claimant's property interests when we can assume the claimant would retain the economic benefit or the exchange value from the sale? A landowner who no longer owns severed parcels at the time of the regulation presumably does own the money or other assets that she received in exchange for the land. Should landowners who strategically sever their developable lands be treated differently than landowners who innocently sever and develop their lands, when both receive the same value for the lands they sold? Intentions, even when strategic, should not be included in the relevant parcel calculation, especially when both sets of landowners have already received some benefit for the severance of lands that made the retained land more vulnerable to the regulation.110

From a purely physical perspective, the Penn Central case offers a good example of the intractability of the horizontal severance problem. In that case, Penn Central Transportation was prohibited from building an office tower over Grand Central Station in New York City because the site had been designated a historic landmark under the Landmarks Preservation Law of 1965.111 The plaintiffs argued that its airspace rights were taken by operation of the law; namely, that because it could not build in the space

107 Id. at 240.
108 Woodland Manor, III v. Reisma, No. C.A. PC89-2447, 2003 WL 1224248, at *15 (R.I. Super. Feb. 24, 2003). While numerous courts and scholars have obliquely referred to strategic actions by landowners to set up their takings claim, the discomfort with such actions has usually been with the bad faith manipulation of a landowner, not the arguably innocent actions that effectively create a takings claim. See, e.g., Animas Valley Sand & Gravel v. Bd. of Comm'n of La Plata County (Animas Valley), 38 P.3d 59 (Colo. 2001) (excluding from the takings analysis 4.65 acres sold to the president and majority shareholder of the company which owned the remaining 42 acres).
109 See Loveladies, 28 F.3d 1171 (Fed. Cir. 1994) (rejecting 250 acre and 51 acre parcels, and instead focusing on only the 12.5 acres that were denied a permit); K & K Constr., 575 N.W.2d 531 (Mich. 1998) (including three out of four parcels, but remanding to determine if the fourth that had already been developed should be included); Zealy v. City of Waukesha, 548 N.W.2d 528 (Wisc. 1996) (excluding 239.6 acres previously sold from a 250 acre lot, but including the remaining 10.4 acre parcel rather than 8.2 acres that were downzoned to conservation).
110 The assumption I am making here is that had the landowner not severed and sold the land before the regulation went into effect, the relevant parcel would be sufficiently large that no compensation likely would be required under Penn Central balancing.
111 Penn Central, 438 U.S. 104, 109 (1978) (citing N.Y.C. ADMIN. CODE ch. 8-A, § 205-1.0 et seq. (1976)).
over the terminal, 100% of its airspace above the eight stories of the terminal was taken. In rejecting this sort of vertical segmenting of the plaintiff's property, the Court instead went to the opposite extreme, holding that the relevant horizontal parcel was the entire city tax block designated as the landmark site, not just the land under the terminal building. It also evaluated the economic impact of the Landmarks Law by reference to the transferability of the airspace rights to eight other parcels within the vicinity of the terminal. As Justice Brennan explained:

"Taking" jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated. In deciding whether a particular governmental action has effected a taking, this Court focuses rather both on the character of the action and on the nature and extent of the interference with rights in the parcel as a whole. The obvious question ignored by the Court is just how far out we look to determine the relevant parcel. While it rejected narrowing the rights to the airspace, the Court could have held the relevant parcel to be the land occupied by the terminal; or, as it did for the takings analysis, the land occupied by the terminal and the rest of the city tax block; or, as it did for purposes of determining economic impact, the plaintiff's land holdings in the relevant city block plus eight other parcels of land owned within the vicinity of the terminal. Where should the Court stop? Should it stop at land owned across the street, two blocks away, land in uptown Manhattan, land in New Jersey, or perhaps even the aggregate of all land owned by the plaintiff anywhere in the country at any time in its history? There is no clear answer to this line-drawing problem because there is no principled way to identify the relevant parcel from a purely horizontal perspective. If land across the street can be considered part of the relevant parcel, then why not land across the Hudson River, or across the continent?

Similarly, the Court had an opportunity to address horizontal severance in 1979 in *Kaiser Aetna* but did not do so. Despite the fact that the plaintiffs had owned a common piece of land and were developing a major residential development in Honolulu, which included a marina, Justice Rehnquist did not engage the denominator issue in holding that the right to exclude the public from a newly dredged channel and marina was the relevant parcel. From a horizontal perspective we could say that the land under the pond, now made navigable as a result of the dredging, and therefore subject to public access under the federal navigational servitude, should be treated distinctly from the upland portions being developed at a significant profit. But the Court never acknowledged the existence of the

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112 See infra Section III.B (discussing vertical severance).
113 *Penn Central*, 438 U.S. at 130-31.
114 See *Brace*, 48 Fed. Cl. 272 (2000) (involving a parcel that included lands across the street and even down the street as relevant).
116 *Id.* at 180.
upland portions, even though they were contiguous, purchased in the same transaction, developed as an integrated unit, and the dredged channel clearly related to the use of the upland marina. The failure to even address the extensive landholdings, significant profit, and successful development of the upland lots in Kaiser Aetna reveals a blind spot in the Court's jurisprudence that it seems completely comfortable avoiding at the expense of the public taxpayers and to the benefit of large-scale developers.

Though the Ciampitti factors claim to rely heavily on contiguity, single purchase, and integrated development scheme, none of these factors appear to be logically necessary. Ciampitti itself was in fact a case about noncontiguous parcels that were considered as one because they were purchased together in a single transaction. Without discussing it, the court certainly did not consider contiguity to be a necessary element. But without contiguity, the relevant parcel determination becomes very fluid, for when push comes to shove, none of the Ciampitti factors are necessary elements. For instance, a single transaction is not necessary, for a railroad that acquired a two mile corridor through 47 different transactions could surely not complain if the entire corridor were treated as the relevant parcel. Nor is contiguity necessary, for landowners may treat different sections of their land differently, part being used as a road and part as residential home lots. Such differential treatment would not be likely to lead a court into considering the two parts as different parcels in analyzing a zoning or development permit application.

The problem with horizontal severance is that in some cases, especially for landowners of large holdings, the outside endpoint for the denominator might be so great that no governmental regulation would get the takings fraction beyond a minimal amount. On the other extreme, a landowner of only small holdings is far more likely to receive compensation because the denominator is small, regardless of the landowner's prior actions, landholdings, intentions, or strategic severance of the regulated parcel.

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117 Id. at 167.
119 Id. at 320.
120 Broadwater Farms, 35 Fed. Cl. 232, 239 (1996). This is the situation in Dist. Intown Props., 198 F.3d 874 (D.C. Cir. 1999), where the owner of an apartment building in Washington, D.C. tried to claim that the open spaces, parking lots, and yards around the building should be considered as separate lots for takings purposes when the historic preservation laws prevented building more apartments surrounding the principal building. The court noted that the fact that the landowner paid the yard maintenance fees out of the same account as the building's common space maintenance fees refuted any claim that the landowner treated the yard and the buildings as separate properties. Id. at 880.
121 Fee, supra note 16, at 1552.
122 There is some indication that David Lucas did exactly this—by transferring the two affected lots out of the corporation in which he was a principal stockholder and into his private ownership, he strategically reduced the takings denominator to exactly the parcels affected by the regulation. See Lucas, 505 U.S. 1003, 1038 (1992). John Fee suggests that we should not look to landowner's actions in determining the relevant parcel because they are unlikely to manipulate claims about economic expectations. David Lucas would appear to me to present exactly the kind of strategic claim Fee believes unlikely. See Fee, supra note 16 at 1560. Commentators have also warned against rules that allow for such strategic actions, especially in...
This apparent differential treatment has been the source of some criticism of relevant parcel calculations, but only Richard Epstein seems willing to go to the extreme and argue that the relevant parcel calculation is entirely irrelevant, and that the denominator always should be the same as the numerator. But Epstein aside, once we accept the propriety of doing a relevant parcel calculation, the difficulty obviously lies in justifying any denominator larger than the numerator. And while courts have said the denominator issue must be addressed, they have offered very little justification for that claim except that it would be unfair to the government (government could hardly go on) if it had to pay for every restriction on property rights.

B. Vertical Severance

The Supreme Court has addressed the vertical severance question a number of times and, not surprisingly, has been inconsistent in its responses. The first case was Mahon, in which Justice Holmes found that the Kohler Act destroyed the coal companies' support estates which made it impossible for them to mine coal, even though mining would destroy the surface estate. The vertical separation of the fee into mineral, support, and surface estates was deemed, by Justice Holmes, to be an acceptable way to think about the consequences of the legislation. Even though the fee simple estate was not destroyed by the Kohler Act, the restrictions on mining essentially transferred the support estate to the surface owners, thus rendering the mineral estates valueless.

Sixty-five years later, however, the Supreme Court refused to vertically sever the fee estate in a nearly identical case: Keystone Bituminous Coal Ass'n v. DeBenedictis (Keystone Bituminous). In that case, Justice Stevens explained that the Court would not vertically sever the support estate because it has no value separate and apart from either the mineral or surface estates. As Justice Stevens explained:

[O]ur takings jurisprudence forecloses reliance on such legalistic distinctions within a bundle of property rights. . . . [I]n practical terms, the support estate

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124 "Land use regulations are ubiquitous and most of them impact property values in some tangential way—often in completely unanticipated ways. Treating them all as per se takings would transform government regulation into a luxury few governments could afford." TAHOE-SIERRA, 535 U.S. 302, 324 (2002).

125 260 U.S. 393 (1922).

126 Id. at 412–14.

127 Id. at 414.

has value only insofar as it protects or enhances the value of the estate with which it is associated. Its value is merely a part of the entire bundle of rights possessed by the owner of either the coal or the surface.\textsuperscript{129}

No compensation was necessary in \textit{Keystone Bituminous} when only two percent of the coal was required to remain in place to prevent subsidence of the surface.\textsuperscript{130} The amount of coal, though valuable, was believed to be minimal in comparison to the harm prevented and the amount of coal that could still be removed.\textsuperscript{131}

Possessing value as a separate estate has not, however, served as the rule of thumb for when vertical severance will be considered in other cases. With regard to airspace rights, the Court first held that the airspace could be severed off and taken when low-flying airplanes caused a destruction of a chicken farmer's business in \textit{United States v. Causby},\textsuperscript{132} even though the airspace itself had no apparent value. But, in 1979, when Penn Central Transportation wanted to build its twenty-story office tower in the airspace over Grand Central Station, the Court refused to consider the property rights taken as just the airspace rights.\textsuperscript{133} Despite the predicted $100,000,000 value of the office tower,\textsuperscript{134} the Court found no taking because, when viewed in terms of the aggregate value of the entire city tax block, the land still retained value despite the historic landmark designation and the prohibition of building in the airspace above the terminal.\textsuperscript{135}

Although limited vertical severance might seem to make some sense with regard to traditionally recognized vertical estates (mineral, surface, and airspace), the Court seems willing to slice up the fee for denominator purposes if the remaining estate loses all value, and unwilling to slice it if it retains value.\textsuperscript{136} Lower courts, however, seem to have taken a slightly different approach to vertical segmentation: Where a landowner purchases the entire fee simple estate and loses the right to mine, she likely has no taking claim because the land retains value for timber, recreation, and perhaps development.\textsuperscript{137} But where a landowner purchases only the mineral

\textsuperscript{129} Id. at 500-01.
\textsuperscript{130} Id. at 498.
\textsuperscript{131} This case too has a horizontal and a vertical component—horizontal when comparing two percent of affected coal with all the coal, and vertical when comparing the effects on the support, surface, and mineral estates.
\textsuperscript{132} 328 U.S. 256 (1946).
\textsuperscript{133} \textit{Penn Central}, 438 U.S. 104 (1978).
\textsuperscript{134} Id. at 116 (50 year lease of $3 million per year rental less $1 million per year loss of existing concessions).
\textsuperscript{135} Id. at 138.
\textsuperscript{136} See Mark Lisker, \textit{Regulatory Takings and the Denominator Problem}, 27 \textit{Rutgers L.J.} 663, 720–24 (1996) (taking the approach of limiting severance to only those separate and distinct estates recognized under state law). We can perhaps distinguish \textit{Mahon} and \textit{Penn Central} by the fact that, without the support estate, the coal companies could not exploit their mineral estates at all. Thus, they faced total destruction of the value of the property rights they owned (they only owned the support and mineral estates) by virtue of the “taking” of the support estate. In \textit{Penn Central}, however, the purported taking of the airspace left the landowner with a continuing valuable estate, the surface use of the terminal.
\textsuperscript{137} Cane Tenn., Inc. v. United States, 54 Fed. Cl. 100, 107-08 (2002); Cane Tenn., Inc. v.
estate and is prohibited from mining by regulation, compensation may be due because the landowner experiences a 100% economic loss.\textsuperscript{138} Other courts have created different rules under state Takings Clauses, rules that look at intent behind the purchase and the economics of comparing land inside and outside regulated areas.\textsuperscript{139}

Vertical segmentation is also complicated when a landowner acquires only mining rights, but to an area larger than what is regulated. Under federal takings law, the courts have said the total viable mining rights are the relevant parcel when only a portion are regulated.\textsuperscript{140} But under Ohio law, for instance, it is not clear that the courts would include mining rights outside the regulated area in determining the relevant parcel.\textsuperscript{141} Value and reasonable investment-backed expectations clearly play a role in lower court determinations of the relevant parcel, but in strange ways. One court says no compensation is due from regulation of mineral lands because economic value remains,\textsuperscript{142} while another court requires compensation because exploiting the minerals was the economic endeavor intended by the parties and a mining company, presumably, should not have to move into the ecotourism or development business to take advantage of land purchases.\textsuperscript{143}

One obvious problem with the vertical severance rule is it encourages landowners to purchase only the bare minimum property they require for their immediate needs. If a mining company has no takings claim to land which it purchased in fee because the land could be sold for other uses, while it has a takings claim if it only purchases mineral rights, there is an incentive to rely on the Takings Clause as insurance for investments in regulated activities. Without the Takings Clause insurance, a wise investor would seem likely to maximize property interests so long as she can do so efficiently. A mining company would not purchase fee interests in land if

\textsuperscript{138} \textit{Cane Tenn.}, 54 Fed. Cl. 100; \textit{Cane Tenn.}, 57 Fed. Cl. 115 (remanding for determination of whether the second parcel had residual value when it contained only mining rights). Also, the concurrence in \textit{Animas Valley} stated that there should be no difference between landowners who purchase the entire fee and those that purchase only the mineral rights; each should be analyzed according to the economic impact alone. \textit{Animas Valley}, 38 P.3d at 74 (Kourlis, J. specially concurring). \textit{But see RTG, Inc. v. State, 780 N.E.2d 998, 1008-09 (Ohio 2002) (holding that under Ohio law, mineral estate can be severed for takings purposes, even if the landowner owns the full fee interests).}

\textsuperscript{139} \textit{RTG}, 780 N.E.2d at 1008 (stating that under the Takings Clause of the Ohio Constitution, "coal rights are severable and may be considered as a separate property interest if the property owner's intent was to purchase the property solely for the purpose of mining coal" (emphasis added)).


\textsuperscript{141} \textit{RTG}, 780 N.E.2d at 1006-10.

\textsuperscript{142} \textit{Cane Tenn.}, 54 Fed. Cl. at 107-08; \textit{Cane Tenn.}, 57 Fed. Cl. at 129-31.

\textsuperscript{143} Of course, this ignores the possible value that could be reaped from sale of the land for these purposes.
doing so cost five or six times as much as merely purchasing the mineral interests. But, if the fee interests only cost 20% more, and there are other viable uses for the land like timber or recreation, it might be more efficient to purchase the entire fee interest, even if doing so weakens potential takings claims. Sensible takings rules should promote self-insuring, not defeat it. This very tension is perfectly illustrated in *Mahon*, where ownership of the full fee would have removed the company from liability under the Kohler Act, thus eliminating the takings conflict altogether.\(^{144}\) Eighty years later, some of the lower court rules actually punish such a company for self-insuring. This tension seems highly relevant in the creation of any denominator rules and yet there has been no discussion of it in any of the cases.

The problem becomes very apparent in considering what still remains one of the most important takings cases of the century, *Penn Central*. What if Penn Central Transportation had sold the surface estate (Grand Central Station) to another business and retained only the airspace rights, perhaps with a lease from the new owners for construction of the tower, before the landmark designation? Would the fact that Penn Central only owned the airspace and lease give it a stronger taking claim because without the airspace its remaining lease no longer had value? What if, instead, Penn Central had sold the airspace to another entity and its successor brought the takings claim? From many of the Court's cases on vertical severance, we could reasonably assume that the preregulation severance and change in ownership would better position the landowner for a sympathetic takings inquiry. But such rules should alert courts to look for strategic behavior designed to set up a favorable takings claim.\(^{145}\)

Ironically, preregulation severance is essentially what occurred in *Mahon*. In that case, the Kohler Act prohibited the excavation of coal that would cause subsidence of land under buildings, streets, and other structures if the surface lands had been severed from the mineral estates. The regulation explicitly applied only to those companies that had reduced their holdings from fee simple absolute, to simply the mineral and support estates. Justice Holmes, in holding that the coal companies' support estate and underlying coal had been taken by the regulation and that compensation was due, explained, "In general it is not plain that a man's misfortunes or necessities will justify his shifting the damages to his neighbor's shoulders."\(^{146}\) Justice Holmes believed that the coal companies, who owned both the mineral and the support estates, should not be forced to protect, at their expense, the private property rights of third parties, the surface owners. But this snapshot view of ownership overlooks the role of the coal companies in making themselves subject to the regulation by severing the

\(^{144}\) 260 U.S. 393, 414 (1922).

\(^{145}\) This is the reasoning of *Mahon*, 260 U.S. 393 (1922), as well as *Broadwater Farms*, 35 Fed. Cl. 232 (1996), and *Ciampitti*, 22 Cl. Ct. 310 (1991).

\(^{146}\) *Mahon*, 260 U.S. at 416. At the same time, is it plain that encouraging a man to pursue profits justifies shifting external costs to his neighbor's shoulders?
surface rights. Had they not sold off the surface rights they would not have been subject to the Act and the taxpayers would not have had to bail out their frustrated expectations. Similarly, if Penn Central Transportation sold the surface terminal and retained only the airspace, it would have participated in reducing its property rights to the barest minimum needed to accomplish its goal of building an office tower. Any additional restraint after the severance would make its retained property rights entirely worthless, even though it was in a position, by not selling, to avoid all regulatory harm.

But can we justify punishing a property owner who maximizes value by selling those property rights that he does not need, retaining only what is necessary for his current purpose (either horizontally or vertically)? The coal companies in Mahon are perfect examples of wealth maximizers and rational capitalists; because they wanted to maximize their profits by exploiting both the mineral estates and the surface estates, they severed the two, selling to private individuals just the surface rights under a contract waiving the support rights. My students insist that the surface owners were on notice that they were not acquiring support rights, that they contracted away such rights, and should not be able to renegotiate their contracts through legislation. But viewing the series of transactions not as single, unrelated events, but as a continuously evolving interaction, we see that the coal companies have, through their own voluntary actions, placed themselves in a position that they are unable to exploit their own retained property without causing harm to the property rights of the surface owners which they created.

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147 I understand that an argument could be made that they had no idea their severance of the surface would put them in such a vulnerable position, though in reality I question whether such a claim would hold water when they are responsible in some way for guaranteeing the enjoyment of the surface owners’ estates. Any subdivider of land guarantees quiet enjoyment to his grantees, whether that necessitates providing an easement, limiting his own activities, or merely warranting title. See William B. Stoebuck & Dale A. Whitman, The Law of Property 281, 910 (3d ed. 2000).

148 Of course, in Mahon the taxpayers did not in fact have to bail out the coal companies because the Act was rescinded, but that merely shifted the harm from the taxpayer to the surface estate owners. Mahon, 260 U.S. at 414–16.

149 This is an equitable version of “don’t put all your eggs in one basket.” Landowners who sell off everything but the right to engage in a single use are not entirely without responsibility for the harms they suffer when that single use is prohibited. In looking at the effects of landowner’s preregulation actions, it may be reasonable to analyze the foreseeability by regulators of causing such detrimental impact, as well as the foreseeability by landowners that a specific use may be curtailed.

150 It is critical to such an analysis that the mineral and surface estates cannot both be enjoyed and exploited at the same time. Use of one necessarily destroys the other.

151 How can we distinguish, if at all, between the contract rights at issue in Mahon and the contracts between bakers and bakery owners in Lochner, 198 U.S. 45 (1905)? And if we cannot, then is it not reasonable to at least question our commitment to upholding these contracts?

152 It is as though the bakery owners in Lochner agreed to limit the number of bakeries in operation so that they were now required to run for longer and longer hours, thus exposing their workers to unhealthy working conditions. Then they cry foul when limits are imposed on their ability to exploit fully their workers’ labor.
The Pennsylvania statute created an exception for coal mining companies that still retained the surface estates; i.e., those that had self-insured. They might destroy those estates because, in owning both, they would assume the risk of exploiting one form of property (the coal) at the expense of another form (the surface) and would best be able to choose which was the more profitable in light of the fact that both could not simultaneously be developed. Although Justice Holmes was convinced that the coal companies lost their mineral and support estates by operation of the statute and were thereby entitled to compensation, he failed to note the role the companies played in creating the pickle in which they found themselves, and the value they previously derived from selling the surface lands which they then proceeded to undermine.

There is an important argument here, that I develop later, as to whether the Takings Clause is designed to insure all landowners against risky investments or protect against catastrophic losses. The business person who purchases only the mineral rights or only the number of acres barely sufficient to support her development may suffer significant loss if regulations are enacted that preclude completion of her plans. On the other hand, the wise and cautious investor anticipates change and might purchase extra land or additional property rights to serve as a buffer in case the original plans become impossible. Such hedging prevents total wipeouts and is often wholly within a landowner's power. And while at one time government policy may have been to encourage exploitation of resources at all costs, in the highest and most extensive manner, which would call for a rule encouraging people to maximize wealth by minimizing property rights, times have changed. Land uses conflict, and landowners cannot reasonably expect highest and best use. And that truth leaves the courts in the inevitable quandary of determining the amount of self-insurance or reduction in profit that the Constitution permits, or perhaps requires, be imposed on all landowners.

Should the relevant parcel, therefore, be the property owned by the coal company at the time of the regulation (the mineral and support estate), or the property owned by the coal company before it severed the surface estate and sold it to buyers who would be unable to use and develop their new property if the coal company chose to use and develop its retained rights? Preregulation severance, even if not done strategically to set up a Lucas-type claim, certainly should be relevant in the case of Mahon because the conveyance of the surface estate was for value, and it should be relevant for

153 See discussion infra Section VII.
154 See Euclid, 272 U.S. 365 (1926) (finding that landowners cannot expect unfettered right to development and highest and best use); see also Colonial Land Use Law, supra note 23 (an excellent article on the history of Takings Clause jurisprudence and the extensive regulations and limitations on land use that existed well into the nineteenth century).
155 The fear raised after Lucas was that landowners would sever their property rights into such narrow sticks that the regulation would then be held to have taken 100% of the value of that narrow stick. See Radin, supra note 122.
all landowners who can take minimal steps to insure against regulatory change.\footnote{One could perhaps also argue for a different outcome based on the question of unconscionability of the contract term whereby the surface owners purportedly agreed to purchase a surface estate without a support estate. Perhaps they knowingly took the risk, paid significantly less for the surface estate than they would have paid had they also acquired the support estate, and perhaps they had other options and could have purchased land nearby in fee simple absolute, or at least surface rights that would not be undermined. Even assuming the surface buyers understood that they were acquiring property rights that were at risk of destruction, should we protect the coal companies' ability to sever their property rights in such a way as to impose such a risk on their own grantees? Ironically, there are many property rights we do not allow parties to contract around, such as the warranties of habitability and quiet enjoyment. Although some commentators argue against such paternalistic interference with the economic marketplace, courts do not seem inclined any time soon to ignore imbalances in bargaining power and terms that shift the risk of harm to those least able to protect against it. See generally Duncan Kennedy, \textit{Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power}, 41 MD. L. REV. 563 (1982).
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Failing to look back at a landowner's choices to sell or develop excess property, or failure to buy sufficient buffer rights when available, artificially constricts a court's view of the decisions a landowner makes over time to use and enjoy the benefits of his property. I do not criticize Pennsylvania Coal's decision to sell off its unneeded surface rights. But I do suggest that such an action is relevant in the denominator calculation because a special relationship and a duty were created by the coal company's actions. And it is certainly relevant that the Kohler Act essentially protected the interests of grantees of the coal companies, not simply the public at large. Failing to take account of these voluntary actions effectively creates a constitutional right to be a wealth maximizer.

\textit{C. Functional Severance}

The denominator problem also arises in a more abstract form that I call functional severance, and which Margaret Jane Radin has termed conceptual severance.\footnote{Radin, \textit{supra} note 122. Radin explains conceptual severance as:

delineating a property interesting consisting of just what the government action has removed from the owner, and then asserting that that particular whole thing has been permanently taken. Thus, this strategy hypothetically or conceptually "severs" from the whole bundle of rights just those strands that are interfered with by the regulation, and then hypothetically or conceptually construes those strands in the aggregate as a separate whole thing.

\textit{Id.} at 1676.}

Rather than focus on the physical acreage affected by a regulation or the vertical estates, some landowners have tried to narrowly identify the property right that is affected in a way that implies a 100% taking.\footnote{Mark Lisker suggests a rule that would have the courts start with the landowner's definition of the denominator and only move off that definition if it is patently unreasonable. He seems satisfied that landowners will not overreach because they want to maintain some credibility with the court. \textit{See Lisker, supra} note 10, at 720. But given the claims of plaintiffs in} This has worked in certain cases and not in others. For instance,
rather than think of the physical 1% to 2% of land that would escheat under the Indian Land Consolidation Act, the Court in *Hodel* identified the rights to descent and devise as two core sticks in the bundle of rights, the destruction of which constituted a compensable taking. By separating out the rights of descent and devise, even though rights of *inter vivos* transfer remained, the Court conceived of the regulation as entirely destroying two core property rights.

There is a distinction to be made between Radin's notion of conceptual severance, which includes any effort to narrow the description of the property right to only those portions of property, either horizontal, vertical, functional, or temporal, that is negatively affected, and the functional severance I am talking about here. The former is essentially any interest less than the fee, or perhaps a leasehold, and is usually defined by landowners as whatever the precluded uses or restricted interests might be. The latter is a subset of the former, consisting primarily of legally cognizable rights, like the rights to exclude, alienate, and possess, as well as the rights to develop and use, which are often hampered by regulations. According to Radin, conceptual severance was resisted in *Penn Central* when the Court refused to vertically sever the fee and allowed in *Hodel* where the severance of rights to devise and descent demanded compensation. For sheer logic and symmetry, I use the term functional severance to pull out those situations that are not severances in physical space (horizontal or vertical) or time, but are attempts to define property rights by function, either as sticks in the bundle, or as even smaller, function-specific use rights.

Functional severance is a logical response to the twentieth century trend in viewing property as a bundle of legal rights, not the physical thing itself, and *Mahon* is one of the cases that began the shift. Simply recognizing that a regulation can destroy core attributes of property without necessitating physical invasion or appropriation of ownership marks regulatory takings doctrine as leading the charge toward functional

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160 Justice O'Connor explained that "the character of the Governmental regulation here is extraordinary.... Moreover, this statute effectively abolishes both descent and devise of these property interests even when the passing of the property to the heir might result in consolidation of property.... [A] total abrogation of these rights cannot be upheld." *Id* at 716-17 (emphasis removed).

161 I distinguish vertical severance from functional severance because of the legal acceptance of the estates of airspace, support, and mineral rights. We routinely transfer such physical estates, while we often use servitudes to limit more indistinct rights like development rights. Servitudes can be infinitely adaptable and malleable to define very limited uses or very broad uses and are accordingly less defined and more difficult to value in inverse condemnation claims. As such, severance by landowners in ways that are limited to specific uses fits a narrow definition of functional severance, rather than the broader notion of Radin's conceptual severance.

162 See JOSEPH SINGER, INTRODUCTION TO PROPERTY 2-3 (2001); HOHFIELD, supra note 53, at 23-24; STOEBUCK & WHITMAN, supra note 147, at 3-7.
severance of property. In an extreme form, functional severance encourages us to think of a regulation prohibiting the building of a nuclear power plant on a fault line as a total taking of the property right to build a nuclear power plant, even though all other uses are permitted and no ownership or possessory rights are taken.\textsuperscript{163} A particularly extreme example of functional severance was the claim by Exxon that a taking occurred when the Valdez was allowed to travel anywhere in the world except Prince William Sound.\textsuperscript{164} The idea that compensation should be paid for a taking of the right to enter Prince William Sound, despite the regulation's minimal effect on the value of the ship, would be soundly rejected by most courts. However, those same courts would turn around and compensate for the taking of the right to descent and devise fractional interests in property that constitute less than two percent of the total fee.

Functional severance has been difficult for the Court to contain because of the modern trend of breaking down the effects of a governmental regulation on land use by focusing on the individual property rights affected, rather than on the physical object. Thus, interference with the right to exclude,\textsuperscript{165} the right to descent and devise,\textsuperscript{166} the right to possession,\textsuperscript{167} and the right to use a particular space on one's building\textsuperscript{168} have been held to be takings of those particular sticks in the bundle. Consequently, a landowner who can frame the effects of a regulation in terms of a total taking of a core stick may be moderately successful, despite the fact that all the other core sticks, including ownership and possession, remain unaffected. While the Court has attempted to stem this trend by protecting only core property rights when they are completely destroyed, it has generally been unsuccessful. The Court required compensation when the only right taken was the right to exclude cable television boxes even though the right to exclude all other persons and things remained unaffected.\textsuperscript{169} Compensation was also required when the property right taken was the right to exclude lateral beach users from a narrow strip of beachfront land even though they were excluded from the rest of the petitioner's land.\textsuperscript{170} At the same time, the Court apparently did not view the right to alienate eagle feathers for value to be a core stick even though virtually all economic value was destroyed, nor the right to exclude war protestors from privately owned shopping malls.\textsuperscript{171}

\textsuperscript{163} San Diego Gas & Elec. v. City of San Diego, 450 U.S. 621, 626 n.6 (1981) (claiming deprivation of beneficial use when industrial property was rezoned for open space and no longer suitable for a nuclear power plant).

\textsuperscript{164} See, e.g., Maritrans, Inc. v. United States, 40 Fed. Cl. 790, 801 (1998) (as another egregious takings claim, finding a taking when regulations required single hull barges to be retrofitted with a double hull).

\textsuperscript{165} Kaiser Aetna, 444 U.S. 164, 180 (1979).

\textsuperscript{166} Hodel, 481 U.S. 704, 718 (1987).


\textsuperscript{168} Loretto, 458 U.S. 419, 441-42 (1982).

\textsuperscript{169} Id.

\textsuperscript{170} Nollan, 483 U.S. 825, 841-42 (1987).

\textsuperscript{171} Pruneyard Shopping Ctr. v. Robbins, 447 U.S. 74, 88 (1980); Andrus v. Allard, 444 U.S. 51 (1979). At some point, however, one must give up the illusion that consistency or coherence will
If the Court wants to base takings jurisprudence on the bundle of rights, and award compensation whenever a core stick (the right to alienate, possess, exclude, or use) is taken, it would find support for such severance in traditional property law. But line-drawing, even with core sticks, has proven to be nearly impossible. Should the courts protect the right to exclude everyone, but not the right to exclude certain people, or should they protect the right to use and develop when regulations bar all forms of development, or just certain types of development, like mining? Not surprisingly, the Court has rejected some regulation-specific severance of the bundle (the right to build a power plant on a fault line), but not all (the right to exclude cable television boxes), and it refuses to even see the functional severance in others (the right to use as an office building and not as a railroad terminal). Functional severance is quite incoherent when we consider that all regulations affecting uses of property will more or less affect a core stick and that there is no feasible way to prevent sliding down the slippery slope toward recognition of all regulation-specific severances.

While trying to cabin the trend of landowners arguing for functional severance, the Court has still been receptive to arguments claiming a combination of core rights and economic value. In that way, regulations that interfere with specific property rights and that also drastically affect economic value may be evaluated through functional severance, but not regulations that leave some economic value. Thus, when value is tied to a single use, and that use is prohibited, the Court seems willing to consider functional severance, but not when economic value remains through other uses. When David Lucas was prohibited from building a residence on his

emerge from the Court’s jurisprudence. See generally Kanner, supra note 43.

172 SINGER, supra note 162, at 3–4.

173 Kaiser Aetna, 444 U.S. 164, 179–80 (1979) (finding the government cannot take the “right to exclude” without paying compensation).

174 Pruneyard Shopping Ctr., 447 U.S. at 84 (ruling that in a shopping center, the right to exclude war protesters was not “so essential to the use or economic value of the property that the state-authorized limitation of it amounted to a taking”).

175 Lucas, 505 U.S. 1003, 1030 (1992) (granting compensation when “all economically productive or beneficial uses of land” are off limits).


178 Loretto, 458 U.S. 419, 441, 438 n.16 (1982) (awarding compensation for state-required permanent physical occupation of 1.5 cubic feet of Loretto’s property by a cable television installation).


180 Of course, this was not followed in Andrus v. Allard, 444 U.S. 51 (1979), see supra note 171 and accompanying text, or Kaiser Aetna, 444 U.S. 164 (1979), see supra note 115 and accompanying text, though it was in Lucas, 505 U.S. 1003, see infra note 182 and accompanying text.

181 In Lucas, all economic value of the regulated land was arguably tied to residential development. 505 U.S. at 1006. In Andrus, the Court allowed that despite prohibitions on the sale of eagle feathers, some value remained because the eagle feathers could be displayed in a museum and admission could be charged. 444 U.S. at 51, 66–67. The dissent in Andrus did not
two beachfront lots, all that was taken was the right to build two houses.\textsuperscript{182} He still retained the rights to alienate, devise, use, possess, and exclude. He could plant a garden, camp out in a tent, build a fence around the lot, and will it to his children. Yet the Court held that because economic value was tied to this particular use, its prohibition constituted a categorical taking.\textsuperscript{183} The closest semblance of a rule is that destruction of core sticks (regardless of value) or particularly valuable (semi-core) sticks may require compensation. But the Court's supposed rejection of vertical severance while accepting certain types of functional severance cannot be reconciled easily, especially when the difference seems to lie in relying on economic value.

If courts are looking for bright-line rules, they are only making the situation worse when they tie functional severance to economic value. The series of decisions in the four cases involving Florida Rock Industries\textsuperscript{184} illustrates the way in which functional severance runs into trouble when economic value is factored into the equation, because economic value is a factor that is perhaps even more dynamic than the rights to use and develop. Economic value is affected by actions over time, especially actions occurring before the value is negatively affected by a regulation. In this case, Florida Rock owned 1,560 acres of land in south Florida that was well situated for mining limestone. At the time of purchase in 1972, the land was zoned to allow mining and no other state or federal laws restricted the landowners from mining any of the 1,560 acres. In late 1972, however, amendments to the Clean Water Act were passed that required a dredge and fill permit from the Army Corps of Engineers for the type of rock mining anticipated for this land.\textsuperscript{186} Florida Rock sought a permit in 1980 to mine only 98 acres, which was denied. While limerock mining was prohibited, no other use or ownership interests were restricted.

In 1985 (\textit{Florida Rock I}), Judge Kozinski of the United States Claims Court found that the 98 acres were taken, and that the federal government owed compensation, but he declined to address whether the remaining 1,462 acres for which no permit had been requested were also taken.\textsuperscript{186} On appeal, in 1986 (\textit{Florida Rock II}), the U.S. Court of Appeals for the Federal Circuit reversed and remanded, stating, among other points, that it would not imply a taking of the remaining 1,462 acres from the purported taking of the 98
The court was also quite skeptical of the claim that the denial of a permit to mine 98 acres rendered the remaining 1,462 acres valueless, or even the 98 acres valueless, even if the likelihood of being granted a permit to mine the remaining land was nil.\footnote{Florida Rock II, 791 F.2d at 906.} Upon remand (\textit{Florida Rock III}), the Claims Court valued the 98 acres solely in terms of their ability to produce income through rock mining, accepting the plaintiff's claims that no other viable economic use could be made of this land.\footnote{\textit{Id} at 901–02. The court took note of the fact that because the land was located near Miami, it might have other investment value. \textit{Id} at 902.} But upon a second appeal (\textit{Florida Rock IV}), the case was remanded for further determinations of the value of the 98 acres after imposition of the 1972 Clean Water Act amendments\footnote{\textit{Florida Rock III}, 21 Cl. Ct. at 176.} because it was unclear whether the decline in economic value could be accurately attributed to the regulation.\footnote{\textit{Florida Rock IV}, 18 F.3d at 1564–65. This decision also came after the Supreme Court's important opinion in \textit{Lucas}, 505 U.S. 1003 (1992).} The majority noted that if the decline in value was 95\%, a taking would be likely, but not if it was closer to 50%,\footnote{\textit{Florida Rock V}, 18 F.3d at 1565.} a fact that required greater sophistication in weighing the elements of market value to determine if the entire decline was due to the regulation, or if reasonable speculators with long-term plans might still pay a substantial price for regulated property.\footnote{\textit{Id} at 1569.}

The dispute between the majority and dissent in \textit{Florida Rock IV} is a good example of the functional severance problem in calculating the relevant parcel. The regulation arguably only prohibited one type of use, limerock mining, which was admittedly the highest and best use of the land at the time. The majority insisted that compensation can be required for a mere diminution in value when it goes far enough as to look like a partial taking of the fee (whatever that means),\footnote{\textit{Florida Rock IV} was grappling with the fairness issue raised in footnote seven of \textit{Lucas}, namely that 100\% economic loss created a categorical obligation to compensate while 99\% economic loss or less would be evaluated under ad hoc balancing which, even at the high end, did not guarantee compensation. \textit{Lucas}, 505 U.S. at 1017 n.7. \textit{Euclid}, 272 U.S. 365 (1926) is the problem case in which the Court has said that 75\% reduction in economic value is fine if there is sufficient public benefit behind a regulation. \textit{Id} at 384–85. Reconciling \textit{Euclid} and \textit{Lucas} in purely mathematical terms is difficult, though under ad hoc balancing it becomes much easier because the court can consider numerous factors besides decline in economic value.} which suggested that value is somehow a property right that, when taken, should be compensated (at least when enough value is taken, even if it is less than 100%).\footnote{Both the majority and dissent agreed that \textit{Penn Central} was the proper test because the regulation did not cause 100\% economic loss for the value of the entire 98 acres for all uses, but the majority would treat the loss in value as the property right taken and use it as a measure of compensation. \textit{Florida Rock IV}, 18 F.3d at 1569–71. The dissent, on the other hand, would incorporate the loss of economic value into the calculation of whether a taking even occurred, so that relatively low percentages of lost value would likely preclude a finding that a taking occurred in the first place. \textit{Id} at 1578.} The dissent argued that there is no taking unless one can show a total taking of a

\footnote{Is it a partial taking of the fee or a taking of a partial fee?}
traditional severable interest, like the mineral rights, or an easement, or the entire fee. If a total taking of a severable interest occurs, then a legally recognizable property right is to be conveyed to the government upon payment of compensation. If the property interests taken are virtually all the sticks in the bundle, then the fee is to be conveyed upon payment. But the dissent correctly noted that if we cannot identify a severable property right to be conveyed, mere diminution in value should not be enough to support a takings claim, because value alone is not an independent property right, and upon compensation there would be nothing to convey to the government.

The functional severance problem here is more complicated than whether economic value is a stick, the taking of which requires compensation, or is instead merely a factor in determining whether a taking has in fact occurred. When we consider how economic value fluctuates over time as regulations come and go, developments occur, cities expand, and speculating landowners act strategically to maximize their profits, economic value can be a very unsteady variable indeed. One issue raised in *Florida Rock IV* was whether the decline in value could be entirely attributed to the regulation, or whether a robust market in land speculators willing to acquire heavily regulated land would vitiate the claims of economic loss. But both dissent and majority viewed economic value as a static determination based on the presence or absence of a viable real estate market in similarly situated regulated land. They did not, on the other hand, consider what prior actions of the landowner, whether in anticipation of the regulation or not, may have influenced the decline in market value as much as, or perhaps more than, the regulation. Nor did they consider possible future changes in land use that might make the land particularly valuable, especially in population-rich south Florida. Subsequent legislation that allows developers to buy and protect wetlands to compensate for filling in other areas may create market value for this land that would otherwise not exist.

Moving beyond a one-time determination of market value at the regulatory moment and taking account of landowner actions more accurately represents the complex variety of factors that affect market value, but it also makes line-drawing nearly impossible. Consider, for example, a landowner who develops and sells four out of five phases of a residential subdivision located around a public lake, and is denied a section 404 permit to fill half the lands of the fifth phase. This landowner has acted in numerous ways that affected the market value of the remaining land. The development of the first four phases most certainly raised the value of the remaining fifth-phase lands, so there is some value added to Phase Five

196 *Id.* at 1576.
197 *Id.*
198 Because economic impact is one prong of *Penn Central* balancing, the dissent argues that impact is relevant, but it cannot be a determining factor in the taking and the quantum of property at the same time. *Id.* at 1577.
lands beyond whatever was made on the sales of lots in the other four phases from their development. He may have promised to build a marina, a golf club, or a grocery store on the Phase Five lands, a promise that yielded higher returns on the homes sold in the first four phases, and which consequently raised the value of the retained land. At the same time, he may have installed drainage systems in the four phases that increased the surface water on the remaining phase, thus bringing Phase Five lands under the aegis of the Corps, and perhaps lowering its market value. It is not farfetched to imagine that development of the first four phases caused native wildlife to relocate to, or increase the population of endangered species on, the remaining parcel in ways that may have affected market value or increased the Phase Five lands' susceptibility to regulation. Not only because it cannot be filled, but because of endangered species on the land, the landowner may not be able to build any structures at all, though without the first four phases he might have been allowed to develop that land. Should we consider market value, and hence the property right taken by a section 404 denial, only in terms of the effects on market value at the time the permit is denied? Or, should market value be irrelevant in the takings calculation and only relevant in determining the amount of compensation due once a taking has been determined to exist? Or, as I suggest later, should the relevant parcel calculation allow for the consideration of market value without skewing the calculation in favor of large landowners by considering prior actions that both raise and lower market value?

Market value is directly tied to the presence or absence of regulations. For instance, the size and scope of the first four phases of our five-phase development may have been so extensive that the county decided to impose a moratorium on further construction in that area because of damage to the lake from runoff of surface waters, or because the Phase Five lands need to remain wetlands to protect the town’s water supply. The developer's preregulatory activities not only may have elevated the initial property values, but they also may have caused the regulations to work particularly harshly on the retained land so that the diminution in value caused by the regulations were exacerbated by the landowner's prior development. Is it fair to attribute the loss in value entirely to the regulations, or has the landowner participated, in some crucial degree, in the overall interaction of the regulatory and economic marketplace, so that it is fair to offset certain legitimate preregulatory increases in market value against the diminution purportedly caused by the regulation?

At one level, the answer is most certainly yes with regard to big players in the market, and one obvious critique is that big repeat players that can influence market value might be treated differently than small players in the takings analysis. It is also a valid critique that if we take such actions into account, we may not know when to stop, or how far back to go in evaluating the effects of a landowner's preregulation activities. If the English had not occupied this soil, there would have been no revolution, no United States
government, and consequently no Army Corps of Engineers to deny a section 404 permit. The slippery slope rears its head again. But there are natural endpoints, endpoints that can be determined by a principled theory analyzing a landowner's actions against the harm caused by the regulation.

The functional severance problem cannot be coherently solved without some attention to the prior severing that created the disparate and conflicting interests that exist in the first place, and which are balanced and protected by regulations. To the extent economic value has infiltrated the functional severance analysis, a landowner's actions simply cannot be evaluated at the single point in time when a regulation goes into effect. Individual sticks in the bundle rise and fall in economic value over time, not only in response to regulation, but also in response to numerous actions by a landowner as well as by his neighbors. Unpacking that relationship, while not easy, needs to be done in order to ascertain fairly the true effect of a regulation on a severable property right and the value of that property. 201

D. Temporal Severance

The issue of temporal severance is particularly confusing, even for experienced and talented takings lawyers and judges. In traditional takings jurisprudence, temporal severance is the taking of a temporal slice of the property pie over time. An obvious example of temporal severance is the division of ownership over time with the use of future interests. A fee simple determinable followed by a possibility of reverter in the grantor is a clear division of fee ownership over time, as is a life estate followed by a remainder. Similarly, the granting of a leasehold for a particular term of years results in a temporal division in the right to possession. Courts have routinely held that destruction of a vested future interest through regulation is a taking that requires compensation while destruction of a contingent future interest does not. 202 Similarly, a leasehold for a specific period of

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201 It is very important to settle the role of value in functional severance because landowners legitimately need to be able to argue that the only viable use of a particular parcel of land has been denied by a regulation restricting a single use when in fact there is no reasonable alternative use. Clearly, denial of a right to mine may destroy the value of a mineral estate, but it is not clear that a denial of a right to mine destroys the value of any fee interest in land. At the same time despite Justice Blackmun's skepticism in Lucas, the rights to camp, take walks on, devise, and exclude from beachfront land has little economic value without the right to build a house. See Lucas, 505 U.S 1003 (1992).

202 For example, marketable title acts, as well as the rule against perpetuities, cause the termination of contingent future interests and do not raise takings implications because the property rights are deemed to be inchoate and, therefore, not fully fledged property rights warranting constitutional protection. Marketable title acts generally extinguish contingent remainders, executory interests, possibilities of reverter, and other contingent future interests that have burdened property for a period of time, such as forty or fifty years, unless the holder takes steps to preserve his or her interest by rerecording the interest in the public records. See ROGER A. CUNNINGHAM ET AL., THE LAW OF PROPERTY 855–58 (2d ed. 1993); Jay M. Zitter, Annotation, Construction and Effect of “Marketable Record Title” Statutes, 31 A.L.R.4th 11 (1984). Marketable title acts have been deemed constitutional in most states as not working a taking of private property rights. Wayne F. Foster, Annotation, Validity of Statute Canceling, Destroying, Nullifying, or Limiting Enforcement of Possibilities of Reverter or Rights of Re-
time, which is a present possessory interest, cannot be taken without compensation because it is a vested property right even if it is of limited duration.\textsuperscript{203}

The Supreme Court ordered compensation in a number of leasehold cases that arose out of wartime occupation of certain industries by recognizing that a temporal slice of the fee can be appropriated.\textsuperscript{204} And the most recent takings case,\textit{Tahoe-Sierra}, affirmed the correctness of those cases. The leasehold cases, however, also involved physical invasion because future interests and leaseholds are principally defined in terms of a right to possession. Thus, it is not entirely clear if compensation was required because a temporal property right was taken (the leasehold for a specific period of time) or because of the physical invasion (the right to possession). And not surprisingly, lawyers have argued both—that temporal severance is proper in the takings calculation and that no severance is necessary when there is physical invasion.\textsuperscript{205}

So long as we stick to traditional temporal sticks, like present possessory rights and vested future interests, temporal severance is really no different than functional severance. Just as the right to descent and devise is a core stick, so too is a vested remainder. It may even be the case that temporal sticks are more easily protected than, say, the isolated rights to descent and devise, possess, use, or develop, which are relatively new in our thinking about property, because of our long history of common law rules creating future interests.\textsuperscript{206} And the Court has had little difficulty accepting temporal severance with legally distinct temporal property rights, like leaseholds and future interests. It has had more difficulty, however, articulating a coherent rule when a regulation places a temporary restriction on less traditional rights, like the rights to use and develop.

Fortunately, in 2002 the Court settled some of the uncertainty in\textit{Tahoe-Sierra}.\textsuperscript{207} At issue in\textit{Tahoe-Sierra} were two building moratoria adding up to

\begin{footnotesize}
\\textit{Entry for Condition Broken}, 87 A.L.R.3d 1011 (1978). But not all marketable title acts have been held constitutional. In fact, if they do not provide the property owner with an adequate opportunity to protect her rights, they have been held to violate due process protections of property. See Biltmore Village v. Royal, 71 So. 2d 727 (Fla. 1954); Bd. of Educ. v. Miles, 15 N.Y.2d 364 (N.Y. 1965). Generally, however, a one- to two-year period in which to record one's interests is considered adequate to meet due process requirements. See Presbytery of S.E. Iowa v. Harris, 226 N.W.2d 232 (Iowa 1975)\textit{cert. denied}, 423 U.S. 830 (1975); Cline v. Johnson County Bd. of Educ., 548 S.W.2d 507 (Ky. 1977). Currently, 21 states have these acts. They are: California, Connecticut, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, Rhode Island, South Dakota, Utah, Vermont, Wisconsin, and Wyoming. The Supreme Court has held that a mere expectation is not property for takings purposes. Bd. of Regents v. Roth, 408 U.S. 564, 577 (1972).


\textsuperscript{204} United States v. Pewee Coal Co., 341 U.S. 114, 117 (1951); \textit{Gen. Motors}, 323 U.S. at 381.

\textsuperscript{205} The majority in\textit{Tahoe-Sierra} held that no severance is at issue when there is physical invasion, while the dissent argued that a temporal slice had been taken. 535 U.S. 302, 318-320, 355 (2002).

\textsuperscript{206} These are not new activities, just new in terms of severable property rights in the bundle. See\textit{Hohfeld, supra} note 53; Radin,\textit{supra} note 122.

\textsuperscript{207} 535 U.S. at 319-20.

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32 months that prohibited all use and development of certain lands around Lake Tahoe. The critical question before the Court was whether a 32-month temporal slice could be taken out of the endless life of a fee simple absolute. Although the plaintiffs in Tahoe-Sierra argued that the 32-month moratoria were a “temporary taking” under First English Evangelical Lutheran Church of Glendale v. Glendale (First English), the Court disagreed, finally explaining the difference between a temporary taking and a taking of a temporal slice of the fee.

The issue in First English was whether compensation would be due for the effect of a regulation that works a taking between the time the regulation goes into effect and the time it is rescinded. Although termed a “temporary taking,” First English was substantially about whether rescission of an overbroad regulation would remove liability for compensation, or whether payment must be made for the period in which the regulation was in effect, even if it is ultimately rescinded. In requiring that compensation be due, the Court was not dividing the property rights into temporal segments, but rather forcing governments to partially compensate when they choose to rescind overzealous regulation rather than pay for a taking of the fee.

The Court in Tahoe-Sierra, on the other hand, held that specific temporal moratoria are not temporary takings because they are designed to affect land only for a short period of time. Thus, a temporary taking is not the same as the taking of a temporal right. The Court rejected in Tahoe-Sierra the idea that temporary restrictions on development could be a taking because, by definition, a temporary restriction affects only a small portion of the endless life of the fee. The Court limited temporal severance to the taking of a traditional temporal slice, like a leasehold, and did not extend the temporal severance doctrine to include temporary restrictions in just any use or property right.

But in rejecting First English and acknowledging that the wartime leasehold cases were primarily about physical invasion, the Court in Tahoe-Sierra left open the question of when temporary regulations would no longer

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208 Id. at 318.
210 Tahoe-Sierra, 535 U.S. at 335-36. Although the difference was clear to anyone who read the cases carefully, dicta in First English, as well as imprecise descriptions in lower court cases, have raised the possibility that any restriction of a temporary character could be characterized a temporary taking.
211 The Court had been faced four times with the issue of whether a state, particularly California, could require that any regulation held to work a taking required rescission of the law rather than compensation. MacDonald, Sommer & Frates v. Yolo County, 477 U.S. 340 (1986); Williamson County Reg’l Planning Comm’n. v. Hamilton Bank of Johnson, 473 U.S. 172 (1985); San Diego Gas & Elec. Co. v. San Diego, 450 U.S. 621 (1981); Agins, 447 U.S. 255 (1980). Not until First English did the Court actually answer the question in the negative; even if a state chose to rescind a law that otherwise worked a taking, compensation would still be due. First English, 482 U.S. at 306-07.
212 First English, 482 U.S. at 310.
213 Id. at 319.
214 Tahoe-Sierra, 535 U.S. at 302-04.
215 Id.
216 Id.
be deemed a "normal delay" in the development and permitting process, but would become compensable because they go too far. For relevant parcel purposes, the Court has left open the possibility that certain temporal slices, smaller than traditional leaseholds or future interests, can be cut out of the property bundle and require compensation. Normal delays cannot be severed, but presumably abnormal delays, especially bad-faith governmental stalling tactics like the kind arguably present in cases like *City of Monterey v. Del Monte Dunes at Monterey, Ltd.* may cause a temporal severance of a compensable piece of the fee. Even assuming the Court is serious about rejecting efforts to temporally divide the fee except in those traditional cases of future interests and leaseholds, however, the temporal severance problem still raises philosophical difficulties with regard to preregulation landowner actions.

Besides the obvious strategic temporal severance a landowner might do in creating future interests that are likely to be cut down by regulation, just as Pennsylvania Coal severed out the surface estate and made itself vulnerable to regulation, a landowner’s preregulation activities may cause significant temporary harms that might decrease market value of land in the short term but perhaps not in the long term. For instance, a real estate developer might enter into short-term contracts which are then breached because of normal permitting delays. Or, a developer might buy purchase options that, if exercised quickly, will result in tremendous cost savings, but if delayed will result in losses. Such actions can have both short-term costs and short-term gains that might be unduly affected by temporary regulations such as the moratoria at issue in *Tahoe–Sierra*.

To the extent the Court uses market value as a factor in identifying the takings denominator, preregulation actions by the landowner that have high short-term costs and low long-term costs might push a landowner’s case over the edge, from a regulation that would normally have minimal impact on a landowner, to a regulation that goes too far and requires compensation even though it is of temporary duration. This instability in takings law

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218 Steven Eagle acknowledges that any bright-line rule will not adequately account for strategic behavior of landowners in transferring ownership in ways that take advantage of takings rules. Eagle, *supra* note 10, at 10,130–31. John Echeverria also notes that “concern about windfalls is inextricably linked with the property as a whole rule” and he identifies this as a form of strategic behavior by landowners who manufacture takings claims. See John Echeverria, *supra* note 10, at 11,119.

219 While I advocate a dynamic theory of property that would take account of preregulation activities, I do not want to be misunderstood as ignoring the very real threat of governmental bad faith. While I caution against landowners who act strategically to increase their takings claims, I do not want to neglect the possibility of government regulators who do the same thing. These are particularly problematic in the context of temporary regulations. But governmental bad faith, I believe, is best handled by a more robust Due Process Clause, which can weed out illegitimate regulatory behavior. Michael Wolf has an intriguing theory about using the Equal
could prove shaky indeed, unless the courts adopt a rule that evaluates landowner actions in a more comprehensive manner to include preregulatory gains as well as reasonable risks assumed with land speculation.

It is important that the Court has finally clarified what is meant by a temporary taking and that it definitely is not a temporary regulation that, if permanent, would require compensation. Rather, it is a permanent taking that, if cut short, still requires compensation. But clarifying the limits of First English did not help address the underlying issue of when a regulation that has temporary effects moves from being a mere normal delay in development to going too far. To the extent the Court allows temporal severance only for traditional rights like leaseholds and future interests, any other temporary regulation would undergo Penn Central balancing and would likely survive because any time period is necessarily less than the infinite duration of a fee simple absolute. This will be unsatisfying to some because by definition there will be no case that can go too far because a temporary regulation will always be offset by a denominator of infinity. But if, instead, the Court wants to start from the other end and address when a “normal delay” becomes compensable, it is likely to have a hard time drawing lines. It will inevitably run right into the same line-drawing problem we have seen with the other severance issues: namely, what is the relevant parcel in time that should serve as the denominator if the infinitude of fee simple absolute is always too big?

Despite protestations from the Court that it adheres to the “parcel-as-a-whole” rule for physical, functional, and temporal property rights, governmental entities are generally insecure about the Court’s commitment to such a position. And this insecurity stems not only from a question about the Court’s commitment, but from a theoretical uncertainty as to whether the position can be maintained. For how does one distinguish in a principled way between a regulation that affects one acre out of ten, which the Court finds is not compensable, or one acre out of one, which it finds is compensable? How do state actors know that a right to descent and devise is a core property right, but a right to sell eagle feathers is not, or that a moratorium on building is no longer a normal delay in permitting but has become a taking of a temporal interest? The difficulty in identifying the relevant parcel for denominator purposes is not new and has plagued the

Protection Clause in bad faith cases, which was used successfully for a class of one by a landowner claiming local government was out to “get” her. See Vill. of Willowbrook v. Olech, 528 U.S. 562, 563-65 (2000) (stating that the allegations were “sufficient to state a claim for relief under traditional equal protection analysis”). Strategic behavior by landowners, however, can be guarded against only by a robust theory of the relevant parcel.

See Tahoe-Sierra, 535 U.S. at 351–52, 354 (Rehnquist, C.J., dissenting) (focusing on the duration of the moratorium to determine if the taking is compensable).


See Tahoe-Sierra, 535 U.S. at 335–36 (a claim that a regulation has caused a temporary taking requires an examination of all relevant factors and circumstances).
Court since 1922. And the wholly unsatisfactory answer that a taking of 100% of the relevant property must be compensated, but that anything less requires *Penn Central* balancing, does not help because under *Penn Central* balancing the Court must still identify the relevant parcel to place on the scale.

Three aspects of the relevant parcel determination reveal its fundamental incoherence. The first aspect is the role played by previously sold or noncontiguous parcels or interests, the divestment of which makes a landowner more vulnerable to regulation. If we accept that risk is inherent in any business endeavor, and that the Takings Clause is not designed to insure against all losses due to fluctuations in the regulatory market, then some landowners simply have to accept certain regulatory losses as a cost of doing business. In that vein, takings jurisprudence needs a principled way to distinguish between the landowner who took an unreasonable risk in buying property interests that are barely adequate for her proposed plans and then finds those plans frustrated when the interests of neighboring surface owners, public wetlands, and the like prevent her from development, from the landowner who acted reasonably and faces a total or near-total wipeout from unexpected regulatory action. While some commentators suggest this is fundamentally a question of reasonable investment-backed expectations, I believe the issue is best analyzed under the relevant parcel determination, because, as discussed below, ascertainable past actions are better suited for legal analysis than future expectations.

The second aspect is the inappropriateness of using economic value in analyzing the relevant parcel. To the extent courts use economic value or economic viability in severing certain rights, like the right to exclude, or the rights to descent and devise, and compensating owners for interference with those rights, but not compensating for rights with little economic value, they have moved a long way beyond any principled notion of the Takings Clause. Specifically, our notion of property has moved beyond a bundle of rights to a single right, the right to exploit a resource for a maximum amount of money. And while many people may agree that this is the principal goal of a property regime—that it protects economic value—our legal system has clearly rejected such an absolutist position. Regulation of the stock market, business and labor practices, taxation, and a host of other restraints affect economic value of goods and services and we do not allege, until recently, a taking from these government actions. Economic value is certainly important in any robust property-based regime, but it simply

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226 Professor Radin, especially, rejects the idea that property is mainly about money in her path-breaking articles on "market inalienability." See Radin, supra note 82, at 1851, 1914.

227 *Euclid* establishes that the highest and best use of land is not constitutionally protected. 272 U.S. 365, 388-89 (1926).

cannot serve as the quintessential factor in a takings calculation. And to the extent severance and denominator calculations ultimately rely on economic value, I argue the system is on a rapid slide down the slippery slope toward destruction of the property regime itself.\(^2\)

The third aspect is the fundamental tension between the dynamic use of property over time and the snapshot evaluation that occurs in the takings calculation when determining the regulatory moment. Why is the regulation singled out as the cause of regulatory harm and not the sale of buffer lands by the landowner, the overconstruction in the vicinity by others that necessitates regulation, or the destruction of wildlife habitats and watersheds? Carol Rose, quite sensibly, notes that regulation becomes a necessary part of any property regime because it recognizes that, over time, formerly ample resources become scarce and regulation is necessary to limit the aggregate of social harms or complete destruction of public rights in such unowned resources as air, water, or wildlife.\(^2\) Rose suggests that because some people may be surprised by new regulations and their expectations may be severely cut back, some grandfathering, exceptions, and compensation may be appropriate to minimize demoralization costs.\(^2\) I do not disagree. But I do want to emphasize that not everyone can be grandfathered, given exceptions, or compensated. At some point, we all bear the risk of regulatory change causing harm to our interests, expectations, wishes, and pocketbooks. My theory of dynamic property, which looks at landowner actions over time, provides a way to account for all three of these problems within the relevant parcel calculation while retaining the most important values of a property regime: the maximization of the sum total opportunities of everyone to exercise and enjoy property rights which necessarily results in the restriction of the rights of those who would choose to exploit theirs to the utmost.

**IV. THE PROBLEM OF THE REGULATION’S TIMING**

While it is easy to confuse the issue of temporary takings with a taking of a temporal property right, it is also easy to confuse temporal severance with issues over the timing of the regulation. In most instances, courts have had little difficulty identifying the static moment to take the takings snapshot—it is either the day the regulation becomes effective or the day the permits are denied.\(^2\) On that day, market value of land is assumed to

\(^2\) To the extent protection of my property requires limiting your ability to harm me, any government action becomes, in Coase’s world, a relativistic exercise in "might makes right." See Ronald H. Coase, The Problem of Social Cost, 3 J.L. & ECON. 1, 17-18 (1960) (arguing that in the absence of transaction costs, it does not matter which of two conflicting land uses is granted the legal right because the parties will negotiate around any inefficient entitlements).

\(^2\) Property and Expropriations, supra note 18, at 6, 18.

\(^2\) Id. at 19-22.

\(^2\) See Laura Schleich, Takings: The Fifth Amendment, Government Regulation, and the Problem of the Relevant Parcel, 8 J. LAND USE & ENVTL. L. 381, 408 (1993) (arguing in favor of a rule that "takes a snapshot of the property on the day the government imposes a regulation on the property. The measure assesses the physical dimensions of the property on that day,
plummet, property rights are believed to have been confiscated, and the
general regulatory scheme is suddenly visited upon the unoffending property
like the falling of the Sword of Damocles. A landowner who purchases after
the sword has fallen is assumed to have no claim to compensation because
she took the land with notice of the restraints. A landowner who purchased
before the regulation became effective is presumed to bear the full brunt of
the regulatory harm. In the vast majority of instances, the relevant parcel
and its uses is determined at this magic moment. But just as the relevant
parcel calculation can be affected by numerous preregulatory actions, it is
also dependent on when the regulation is presumed to have come into being.
Though I am not suggesting that the timing of the regulation is necessarily
up for grabs, I am suggesting that the relevant regulatory moment should not
be fixed when it is being used to determine the relevant parcel. In particular,
I suggest preregulation actions by landowners should be used to define a
regulatory window, not be excluded from the calculation of regulatory harm.

Ironically, while the Court has found the timeline to be somewhat
flexible in looking at postregulation changes in ownership, it has been
unwilling so far to look at preregulation changes in ownership.\(^{233}\) The
rejection of a strict timing rule for postregulation changes occurred in the
2001 case of \textit{Palazzolo}, in which the question squarely presented was
whether acquisition of land postregulation could justify denial of
compensation on the assumption that the landowner acquired the land with
knowledge of the existence of the regulation.\(^{234}\) Justice O'Connor,
concurring, insisted that postregulation acquisition of the land did not
preclude a claim for inverse condemnation. The point raised in \textit{Palazzolo}
is that when a regulation goes too far, compensation is due the owner at the
time the regulation goes into effect, though a subsequent owner \textit{may} be
entitled to bring suit if the earlier owner was unable or unwilling to bring
suit, or ripen a suit, before a transfer to a subsequent owner occurred.\(^{235}\)

In addressing the postregulation acquisition assumption, the Court did
not examine the corollary assumption that all preregulation acquisitions of
land are equally entitled to compensation if the regulatory impact is the
same. This is a question about whether all preregulation purchasers of land
are equally innocent in the creation of the regulatory harm, and therefore
equally entitled to compensation for a subsequent enactment, or whether
some owners should be denied compensation because, despite preregulation

\(^{233}\) See generally Stephen Abraham, \textit{Windfalls or Windmills: The Right of a Property Owner
to Challenge Use Regulations (A Call to Critically Reexamine the Meaning of Lucas)}, 13 \textit{J. Land
Use \& Env't. L.} 161 (1997).


\(^{235}\) The rejection in \textit{Palazzolo} of a bright-line notice rule that would prohibit \textit{all}
takings claims by landowners who acquire land after the regulation is also a rejection of the obverse
rule implied in \textit{Nollan}, that postregulation acquisition is irrelevant. Thus, the Court has taken
the position that the timing of the regulation is not always relevant and not always irrelevant,
but rather that a landowner's expectations must be specifically analyzed on a case-by-case
basis. Under neither bright-line rule, however, has the Court addressed the question of a similar
acquisition, in relation to their actions and landholdings the law simply does not go too far. We can look at this process as, in effect, moving the regulatory moment either forward or backward, depending on the equities and circumstances of the case.

While the issue was not directly before it in Palazzolo, the Court has had numerous opportunities to address whether all landowners who are equally affected by a regulation are equally entitled to compensation if they owned the land prior to enactment of the regulation. To deny equal treatment, though, assumes a somewhat more complex notion of "similarly situated" than the Court currently uses, and that is the key to the other intractable problem I identify. Can the Court coherently distinguish between two landowners, each of whom acquired her land before a regulation went into effect, each of whom owns virtually identical parcels of land which have now become completely undevelopable as a result of a new regulation, and each of whom claims significant loss of economic value of the only land each owns? Though the Court would have to move to a more dynamic understanding of land ownership and the effects of land regulation in order to reach such a result, I argue the landowner who owned the contiguous parcels and sold them before the regulation simply should not have the same claim as a person who bought just the regulated lot and had not participated in the surrounding development.

The example I am obviously alluding to is the Beachfront Management Act in Lucas, in which a newly redrawn coastal zone management act rendered David Lucas's two beachfront lots completely undevelopable. But imagine that there were two owners of these lots rather than one, each one affected by the new regulation, each unable to build or develop the land in any way, neither owning any other land in the near vicinity, so that the horizontal and functional parcel-as-a-whole problems would not distinguish between the two. Could the Court justify treating these two parties differently? I argue, "Yes . . . under certain circumstances."

Consider the following amendments to the Lucas scenario above: In case 1, landowner A recently purchased a single lot on which he intended to build his retirement home on the beach on the Isle of Palms outside Charleston, South Carolina. Moments after closing on the lot, for which he paid $300,000, the South Carolina legislature modified the Beachfront Management Act so that he is absolutely precluded from building any structure on his new land. The economic impact of the regulation is $300,000, plus perhaps any appreciation in value from the anticipated return on the development. Surely such a landowner would have a valid takings claim.

236 The Court could have addressed this issue in Lucas, Palazzolo, Tahoe-Sierra, and Penn Central had it wanted to confront squarely the different situations of developers and small landowners.


238 This is the scenario ostensibly presented in Lucas, and the rule in Lucas would demand that the landowners be compensated.
Consider next landowner B, a real estate developer, who purchased enough acreage to develop 100 home sites on the Isle of Palms. After selling 99 lots for a hefty profit (say $300,000 per lot), he decided to retain the last lot for his own homesite. He expended $300,000 in architect and engineering fees that would enable him to custom-build a home on this unique piece of land. Just before applying for the building permit, however, the legislature amended the Beachfront Management Act to preclude building on his last remaining lot, even though he had already invested $300,000 in this, his only remaining parcel of land in South Carolina.

Should both landowner A and landowner B be treated similarly? Both lost development rights in the only land they owned in South Carolina and both arguably invested $300,000 in the right to build a home on their particular lots. Under the Court’s current takings doctrine, which looks only at economic impact, reasonable investment-backed expectations, and the character of the governmental action, or more strictly at the categorical compensation obligation because of the loss of 100% of economic value, both landowners would be treated equally, with perhaps even landowner B faring better because his $300,000 investment is in architect and engineering fees and was not in the purchase price of the land.239 This is because both are viewed at the moment the regulation precluded development of the lots. But is this the right result when we consider the actions of landowner B whose voluntary actions influenced the regulatory and economic marketplace?240

While no one has suggested that the timing of the regulation is a necessary and sufficient cause for a takings claim, courts and commentators have hesitated to stray very far from the regulatory moment in determining a landowner’s holdings and analyzing how they are affected by a regulation. For how, one might ask, could a regulation affect property before it is enacted?241 That, however, is the wrong way of thinking about the issue. Instead, courts should ask how a landowner’s actions affect the impact of a regulation. And if certain preregulatory actions by the landowner intensify the negative effects of regulation, the takings analysis should look to the property over time, not just the impact at the regulatory moment. The timing analysis thus becomes an examination of multiple actions and land values within a relevant window, not a static snapshot.

But admitting that a glance backward to preregulation actions may be warranted does not solve the entire dilemma, for it does not tell us how far back to look or when to stop retroactive analyses of the relevant parcel. At some point a landowner should feel free in the knowledge that his or her

239 Perhaps he can claim a vested right to the prior regulatory scheme by virtue of significant investments in parcel-specific planning, even though he had not yet obtained a permit. See supra note 6 (discussing vested rights).

240 Landowner B may also have foreseen the impending regulatory change and positioned himself to benefit from a takings rule premised on 100% economic loss. By creating a lot for which the only viable use is building a home, landowner B arguably participated in the creation of the regulatory harm.

actions will not have a negative impact on future takings claims. If the examples and explanations I have offered above raise some questions about the Court's current relevant parcel rules, then we need not only a theory on when it is acceptable to look behind the regulatory moment, but we also need to know when to look forward again. The window needs a casement on both sides. Fortunately, traditional common law property rules can give us some guidance in these areas, as they have already done so in the areas of nuisance, lateral support, quiet enjoyment, and other rights.

V. A NEW THEORY OF DYNAMIC PROPERTY: LOOKING BACKWARD WITHOUT FALLING OFF THE EDGE

The relevant parcel and the timing problems may not seem integrally related, but a more dynamic understanding of land ownership and development based in nuisance, lateral support, and unity of title can provide analogies for resolving many of the tensions and contradictions identified in the discussions above. The Court needs a method for evaluating the effect of regulations in terms of the character of the government's action as well as the character of the landowner's actions, pre- and postregulation. Not only does it need a way to determine what the relevant physical parcel is for purposes of the regulatory takings calculation, but it also needs to know the relevant time period during which the landowner's actions will be examined for determining the relevant parcel over time. Just as the relevant parcel needs boundaries so we do not look to land holdings on the other side of the continent, there need to be outer limits on how far before the regulatory moment we can look to determine the regulatory window, and how far ahead of the regulatory moment before we close the window to future takings claims. As the Court's jurisprudence stands today, very few previous actions by a landowner dealing with the acquisition and sale of contiguous or related parcels, or severance of any kind, count for determining economic impact, investment-backed expectations, or the relevant parcel. I encourage the Court to open that window.

From the foregoing discussion on the different forms of severance, it is apparent that other common law property doctrines may provide a model for treating land development over time in terms of a duty arising out of severance and prior voluntary actions. Common law doctrines of lateral support and unity of title offer good starting points. Consider, for example, a little-known case out of Massachusetts, in which a landowner who had built a home on Beacon Hill attempted to stop the construction of a new house just downhill that would jeopardize the lateral support of his house. The general rule in such cases is that the downhill owner must provide absolute lateral support for land in its natural state and support for land on which

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242 There is a circularity problem inherent in ad hoc balancing insofar as economic impact or reasonable investment-backed expectations are used to determine either the relevant parcel or the existence of a taking.

buildings have been erected through at least a level of nonnegligence. Thus, removal of the lateral support cannot be undertaken negligently or the excavator will be liable for damage to his neighbor's buildings. But in *Thurston v. Hancock* (*Thurston*), the Massachusetts Supreme Court denied recovery for damage to the preexisting home, not on a theory of nonnegligence by the downhill owner, but based on prior actions of the uphill neighbor who built his house too close to the lot line. As Chief Justice Parker stated:

> [T]his subjection of the use of a man's own property to the convenience of his neighbour is founded upon a supposed preexisting right in his neighbour to have and enjoy the privilege which by such act is impaired. ... A man in digging upon his own land is to have regard to the position of his neighbour's land, and the probable consequences to his neighbour, if he digs too near his line; and if he disturbs the natural state of the soil, he shall answer in damages; but he is answerable only for the natural and necessary consequences of his act, and not for the value of a house put upon or near the line by his neighbour. For, in so placing the house, the neighbour was in fault, and ought to have taken better care of his interest. ... The plaintiff built his house within two feet of the western line of the lot, knowing that the town or those who should hold under it, had a right to build equally near to the line, or to dig down into the soil for any other lawful purpose. He knew also the shape and nature of the ground, and that it was impossible to dig there without causing excavations. He built at his peril; for it was not possible for him, merely by building upon his own ground, to deprive the other party of such use of his as he should deem most advantageous.

In departing from the general rule that the prior user has an entitlement that would prevent the downhill builder from endangering his building, the court adopted a rule that recognizes the reciprocal nature of each landowner's development needs and the symmetrical impact each person's exercise of property rights had on the other. By not giving an entitlement to the first user, the court is holding the first user accountable for actions that have consequences later in time.

There are many versions of this ethic of reciprocity, some positive and some negative. The golden rule says do unto others as you would have others do unto you, while a negative version admonishes one to not do to others that which you do not want done to yourself. The rule we can extract from *Thurston* would be a version of the golden rule: One can be restrained from acting in ways that, if everyone did likewise, would result in conflicting uses and their resultant harm. I call this the reciprocity rule.

244 See STOEBUCK & WHITMAN, supra note 147 at 419–21.
245 *Thurston*, 12 Mass. at 224, 229.
247 This is a Buddhist teaching as well as a Talmudic teaching. See the *Udana-Varga* 5:18 and the Babylonian *Talmud*, Shabbat 31a. For a more general discussion of the golden rule, see H.T.D. ROST, THE GOLDEN RULE: A UNIVERSAL ETHIC (1986).
248 This is a very simplified version of Kant's categorical imperative. See Immanuel Kant, *Metaphysical Foundation of Morals*, in *THE PHILOSOPHY OF KANT 170* (Carl Friedrich ed. 1949)
Under this rule, a landowner may not impose harm on neighbors by actions on her own land that threaten or limit the equivalent or dependent rights of others. This is simply a rule forcing neighbors to internalize external costs that would otherwise fall on adjacent parcels of land, whether it is building too close to a lot line, expelling surface water, or fencing land in a wildlife corridor that diverts animals onto the land of others. This reciprocity rule is little more than a fairly stringent application of the doctrine of sic utere tuo ut alienum non laedas, but it includes the idea that landowners must self-insure to a reasonable extent. A landowner who buys only enough land to build a house, with no extra room left over for yards or driveways, not only imposes on neighbors the burden of open space and access, but stakes a claim to behavior that the neighbors cannot emulate. If my building injures the house of my neighbor because he has not left sufficient yard, then I cannot use my property in the same way he has. He imposes external costs on my property rights, and he has voluntarily chosen to risk his investment on a legal rule that the first-in-time user will prevail.

While we could make all sorts of social utility arguments about risk assessment, the economics of insuring against changes in legal rights, and nuisance rules, the issue remains one of the exercise of property rights, not the possession or ownership of property rights. Regulations, among other things, substitute global solutions to conflicting uses for private common law rules like nuisance or negligence. A regulatory change that suddenly zones for larger yards and setbacks generally serves the same purpose as private ordering through nuisance. So shouldn't our regulatory takings jurisprudence take some lessons from the logic of private nuisance rules? The point here is that the uphill landowner in Thurston, like the developer who sold off all land but the wetlands, seeks to maximize economic return and exploit his property rights to the utmost, in a world in which such behavior injures others. Since we cannot all build to the very edge of our lot lines, the ultimate question for the Takings Clause is whether everyone should be expected to self-insure to a modest amount, or whether the

"Therefore there is only one categorical imperative, namely this: Act only on a maxim by which you can will that it, at the same time, should become a general law."

249 "So use your own Property as not to injure your neighbor's." LATIN FOR LAWYERS, 243 (1992). This embodies the idea that a plaintiff property owner has a nuisance claim against a neighbor whose use of his own property interferes with the use and enjoyment of the plaintiff's property. STOEBUCK & WHITMAN, supra note 147, at 413-17. But just as the courts are able to determine reasonableness in other contexts, they should be able to determine whether construction of a single residence, a multi-residence development, or a nuclear power plant imposes unreasonable externalities on neighbors such that, if they too acted like the landowner, property uses would collide. Inherent in sic utere is an element of reasonableness that must be evaluated by a court, and would need to exist in any rule designed to address competing land uses.

250 One can argue that this means no one can pollute or build because eventually one's neighbors cannot do the same, but there should be a happy medium where courts attempt to maximize the total exercise of property rights by minimizing conflicting uses and preventing one person from dominating the market. See Property and Expropriations, supra note 18, at 15-18.

251 Id.
government will provide compensation either to the uphill landowner who is prohibited from maximizing the exercise of her property rights by building to the lot line or the downhill neighbor who cannot exercise any rights at all because she is precluded from building by the uphill neighbor's actions.

Unlike the traditional application of the *sic utere* rule that would prohibit a use of property by one owner that causes substantial harm to another,\(^{252}\) the reciprocity rule focuses on actions by the landowner crying foul that rendered her property susceptible to harm from neighboring landowners or protective regulations. The reciprocity rule simply tells landowners not to build on the edge of their lots. Rather, they must dedicate a certain amount of space as a protective buffer if they wish to insure the value and stability of their investments. A landowner who sells all her land except one particularly sensitive piece of wetlands is at least partially responsible for suddenly being unable to utilize any of her retained land after the Clean Water Act amendments. This rule puts the risk on those best able to prevent the harm, the landowners, by holding them accountable for taking reasonable steps to protect their investments rather than using the taxpayer, through condemnation awards, to fund an insurance program for risky decision making.\(^{253}\)

A second rule comes out of unity of title cases, especially those cases that give rise to implied legal duties, such as easements by necessity and prior use. In certain circumstances, the law will impose a legal duty to grant an easement when a grantor severs her land and, in so doing, creates a landlocked parcel.\(^{254}\) Because enjoyment of the new parcel depends on access, and severing into two parcels created the need for the access in the first place, courts will imply an easement even if contrary to the intent of the parties.\(^{255}\) This is not the only instance where obligations arise out of severing property. A grantor who leases land will be obligated to protect warranties of habitability and suitability in severed leaseholds.\(^{256}\) A tenant who subleases may not jeopardize the subtenant's possession by breaching the head lease.\(^{257}\) A grantor of a future interest may not waste the property because the remaindermen have property interests in receiving the land in

\(^{252}\) See, e.g., Prah v. Maretti, 321 N.W.2d 182, 191 (Wisc. 1982) (holding private nuisance law applicable to rights of use of sunlight for heating purposes).

\(^{253}\) I recognize that the landowner may not always be the best able to insure, but to the extent she can, that seems a relevant issue for denominator purposes. If she is not in the best position to insure, her reasonable investment-backed expectations should permit compensation under ad hoc balancing.


\(^{255}\) See, e.g., Finn v. Williams, 33 N.E.2d 226, 228 (Ill. 1941) (holding such appurtenant easements survive dormant through a subsequent conveyance of the dominant estate).

\(^{256}\) See STOEBUCK & WHITMAN, *supra* note 147, at 284–86; Blackett v. Olanoff, 358 N.E.2d 817, 820 (Mass. 1976) (finding tenant's implied covenant of habitability breached by landlord when he could have controlled the noise from his other tenant, a bar).

good shape. All of these are examples of duties the law imposes on grantors, whose acts of severance and conveyance give rise to duties not to undermine the enjoyment and quality of the grantee’s rights.

These common law rules are just a few examples in which the law imposes duties and obligations on one parcel of land for the benefit of another when the enjoyment of the latter depends on restrictions of the former, and when there had been at one time unity of title, the severance of which created the dependency relationship in the first place. The law does not interfere when a landowner chooses to impose a burden on one part of her land for the benefit of another part. She may place a driveway over the front half of her land for the benefit of the back section. She may choose to excavate in such a way as to cause collapse of one portion of her land. But if she chooses to subdivide her land, and the integrity of one parcel is dependent on the lateral support or an access easement of the other, the law will impose such a servitude.

The law generally will not create such servitudes for two random parcels of land, parcels that are unrelated to each other. But where there was unity of title and the severance of the parcels created the vulnerability of one separately owned parcel of land on another, the law will impose a duty on the servient estate to not undermine the enjoyment of the dominant estate, even at times where the parties have contracted otherwise. These rules arise in the context of servitudes and leaseholds where a prior or ongoing relationship creates duties not to unreasonably interfere with the enjoyment of the grantee or lessee’s property. It is a small stretch, therefore, to impose similar obligations in fee simple transfers of land by a developer who can best insure against physical or legal harms from the developer’s activities. I call this second rule the severance rule.

Combining the reciprocity and severance rules would prevent a developer who subdivides land into residential parcels and does not leave adequate room on each side to meet setback and building code obligations from transferring that cost to innocent grantees. Notably, both the reciprocity rule and the severance rule are based in equity. Obligations arise from severance not because of the legal property rights created, but because the circumstances demand that equity adjust the rights of the parties to reflect their dependent relationship. Notions of fairness require that a

258 STOEBUCK & WHITMAN, supra note 147, at 146–59.
259 Easements by necessity and implied warranties in leases all require a common grantor.
260 STOEBUCK & WHITMAN, supra note 147, at 445.
261 Id. at 447–49. See generally Finn v. Williams, 33 N.E.2d 226 (Ill. 1941).
262 For instance, even if the parties agree to the purchase of a landlocked parcel, the law will imply a mandatory easement by necessity so as not to create inaccessible and therefore unusable lands.
263 STOEBUCK & WHITMAN, supra note 147, at 281, 910. They include the covenant of quiet enjoyment in which the lessor guarantees to defend the lessee’s possession from others claiming a superior right. Id. at 281. They also include the warranties of habitability and suitability by which a lessor is obligated to provide suitable, fit premises and repair them as the need arises. Id. at 293. The doctrine of caveat emptor no longer applies in the residential lease situation or in sales of new homes so that a grantee is no longer forced to assume the risk of uninhabitable premises. Id. at 292.
landowner not be allowed to act in ways that impose unreasonable externalities on others. Implied easements by necessity, implied reciprocal negative easements, and implied covenants of quiet enjoyment and warranties of habitability and suitability all reflect discomfort with the traditional legal rule of *caveat emptor.* But while property law has been quick to embrace these equitable rules in disputes between private parties, they have generally not been recognized in the context of takings law. One problem with takings jurisprudence is that it has viewed the operation of regulations in a vacuum without investigating adequately whether or not government restrictions simply prevent the breach of these common law duties or impose unexpected newly created duties. In the end, however, a dynamic theory of property that recognizes the many relationships and duties protected by the common law would more accurately account for preregulation actions by landowners that, in all fairness, should be considered in determining the relevant parcel.

Although the analysis may be complex, I suggest that a combined severance rule and reciprocity rule be applied to any denominator calculation. I call this combined rule the rule of “dynamic denominators.” It goes something like this: Where a landowner through her voluntary actions, either in severing property rights or in her use and development of her own land, creates a situation in which harm to the property rights of others or the public may occur, a regulation that subsequently creates an intensified economic impact or limits use and development rights is not a taking of a property right to which she was entitled in the first place. We can break down the dynamic denominator rule as follows: 1) At some time in the past, this landowner owned enough property so that, under *Penn Central* balancing, the regulation’s impact would not be so severe as to require compensation; 2a) the landowner voluntarily severed her property in such a way as to make the regulation’s impact on the retained property more severe; or 2b) acted in ways which, if others acted that way, would lead to incompatible land uses; and 3) the interests of those owners to whom she sold her other land or the public would be injured by her being allowed to exploit her retained property to the fullest extent. If these elements are met for a given set of actions by the landowner, we reopen the regulatory window to take account of the prior actions and prior landholdings in making the relevant parcel calculation.

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264 The *caveat emptor* rule traditionally applied to leaseholds in which the tenant would be out of luck if the house burned down after she took possession, or the building deteriorated due to normal wear and tear. Landlords were not expected to do even basic maintenance. See STOEBUCK & WHITMAN, supra note 147, at 290 (describing relatively new implied warranty of habitability).

265 It seems terribly important to recognize the inequity of forcing the taxpayer to bear a burden of compensating landowners whose actions violate the severance or reciprocity rule.

266 By harm I mean unreasonable limitations on the exercise of one’s property rights or an unreasonable increase in the economic impact of future regulations.

267 This goes beyond the background principles of *Lucas* because it expands the duties outside the context of prior relationships to include harm to the public and harms beyond the narrow easement, lateral support, and leasehold categories in which these doctrines are currently applied.
Breaking down the rule, note that we have expanded the regulatory window for determining the relevant parcel into the past, into a time prior to the enactment of the regulation. We are analyzing whether, had the regulation gone into effect prior to the voluntary severance, compensation would still be due under a *Penn Central* analysis. If there would be no compensation if measured at the earlier time, so that the relevant parcel was the one hundred acres, not the retained one acre, or the entire fee simple absolute, and not the retained mineral and support estates, then compensation would not be due today even if the new regulation causes 100% economic loss of the newly vulnerable, smaller property.

But moving the window back requires some analysis of the property owner’s role in causing the situation for which compensation may be due. Where a property owner purchases a single lot in a subdivision previously owned by a common owner, with the expectation and assurances of being able to put a house on the land, the new landowner is not responsible for creating the vulnerability for which the regulation is now particularly harmful and would, therefore, be entitled to compensation. That person is like the grantee who receives a landlocked parcel and expects to be able to enjoy access to her new land. She is not responsible for creating the need for the easement by necessity. The responsible person is the one who severed the land in the first place.

This does not mean that a landowner would be precluded from bringing an inverse condemnation claim just because she was responsible for certain actions that made the effect of the new regulation more harmful. Rather, for determining one element in the balancing test, the relevant parcel, we should look to the voluntary actions of the landowner that resulted in any reduction of her property and analyze whether those actions contributed to the greater susceptibility of the retained land to harm caused by the regulation. If the landowner was responsible for making herself vulnerable to competing claims by neighbors, the public, or the government, as in *Thurston*, the relevant parcel should be calculated at a time before those actions occurred.

Additionally, we should look to the effect of the landowner’s actions on neighbors, the public, and other interest holders with proprietary values protected by our laws. Thus, if Mr. Lucas’s construction of a beachfront home, in contravention of the new regulation, would cause harm to the neighboring lots which he created, then the relevant parcel should include those now-threatened lots he once owned.268 Similarly, if Pennsylvania Coal is responsible for putting surface estates into the hands of others, and a regulation prevents them from exploiting their retained land in ways that will harm those surface estates, the relevant parcel should be the fee simple absolute it once owned. The relevant parcel should be calculated at a time before those estates were severed because otherwise the landowner is receiving a windfall—first when he sells the land and second when he harms it without liability.

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268 The purpose of beachfront management acts is to protect current structures and beaches facing increased erosion and destruction of buildings caused by development too close to the water’s edge.
Furthermore, it is not just harm to one's own successors in interest that can be prevented by government regulations without raising duties to compensate, but also harm to public property rights. For instance, an entire town may rely on five hundred acres of wetlands for its water supply. Under current takings rules, a landowner who owns 100 acres of land—90 acres of non-wetlands and 10 acres of the wetlands necessary for the town—can be prevented from harming the wetlands under the police power to regulate for the benefit of the general public without being entitled to compensation. If that same landowner develops and sells the 90 upland acres, thus further increasing the burden on the local water supply, and retains the 10 wetlands acres before any new regulation prohibiting destruction of the town's wetlands is implemented, it is even more reasonable to deny compensation because the landowner's prior actions contributed to an increased pressure on the town's and the landowner's remaining wetlands. In a sense, the landowner has already received a benefit built into the sale of the 90 lots from the undeveloped 10 acres of wetlands, and further development would in fact harm not only the rest of the town but also the 90 new owners. Thus, the 100 acres would be the relevant parcel, both before development and sale and afterwards, because of the interdependence of the 10 wetland acres with the severed 90 acres.

What is important about the rule of dynamic denominators is that it does not preclude a compensation action by landowners who, at one time, owned more contiguous land or acted so as to make themselves vulnerable to regulation. Rather, it holds that the relevant parcel determination should take account of these actions, that doing so is fair, and that doing so will help us better address whether a regulation goes too far and whether the taxpayer or the landowner should bear the cost of the harm from a regulation. One factor, the denominator, is broadened, but it should not become conclusive. To better understand the dynamic denominator rule, we can apply it to certain controversial takings situations.

VI. A RULE OF DYNAMIC DENOMINATORS

Although an exhaustive analysis of how such a dynamic denominator rule would play out in every taking situation is not possible, a few examples will help clarify the goals that would be furthered by such a rule.

First, landowners who sever their land and convey a portion to others would have a duty not to harm the interests they create. When they place an innocent party into possession of property rights, that party obtains independent rights appurtenant to the property that cannot be destroyed by the grantor. In particular, the grantee acquires some of the rights originally possessed by the grantor, as well as a right to prevent the grantor from interfering with or destroying the rights of the grantee. For example, when a landowner rents her apartments to tenants, she will owe a duty not to

269 See Euclid, 272 U.S. 365, 392-97 (1926) (discussing how broad restraints from a land-use ordinance restricted a landowner's ability to sell his land for certain uses was a valid exercise of police power authority to benefit public welfare).
interfere with the rights of the tenants to receive cable television service. A developer will likewise owe a duty to grantees not to exacerbate beach erosion or destroy the development's water supply. A takings challenge to regulations enforcing these duties should consider the land owned prior to severance as the relevant parcel because the retained and severed lands are intertwined with dependent duties and relationships.

The severance rule would have us view the case of *Loretto v. Teleprompter Manhattan CATV Corp.* (*Loretto*)\(^{270}\) not as a dispute over the effect of a cable access regulation on the landowner (i.e., a dispute between the landowner and the government), but as a question of whether the actions of the landowner putting someone else into possession of a property right creates a legal duty not to interfere with those rights. Rather than assume the landowner continues to own the full panoply of property rights, including the right to exclude cable providers, and take a snapshot of the effect of the regulation in imposing a physical invasion on an unwilling landowner, the court should instead look at the landowner's activities in renting out apartments and becoming responsible for protecting the enjoyment of the tenant's possessory rights. While there is no question a landowner cannot be forced to accept the physical invasion of a cable company on her own land over which she has exclusive possession, the act of severing her property rights and selling leasehold interests to others makes her, in a sense, a guarantor not to destroy or frustrate the reasonable enjoyment of the interests of those whose possession she made possible in the first place.

The crucial question in *Loretto* then becomes whether or not cable television access is reasonably necessary for the enjoyment of the severed leasehold, interference with which would constitute a breach of her duty. If it is, the relevant parcel analysis should look at her voluntary act of severance and determine if she retained the right to exclusivity or transferred it and therefore should be prohibited from acting in ways that would harm the right she created in her tenants. A dynamic analysis of *Loretto* includes in the relevant parcel calculation the landowner's voluntary act in severing her estate by granting leaseholds, and her consequent obligation not to harm the property rights she created.\(^{271}\) Under such a rule, Ms. Loretto would be treated differently than an owner who has not severed out a leasehold and maintains an expectation of exclusivity.\(^{272}\)

The relevant parcel analysis in *Loretto* would have us look back at the time before severance into leaseholds and reversionary rights to possession and note that she received payment for the value of the right to possession, a

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\(^{271}\) She owns not just the common areas, but the entire apartment building, and has a duty not to interfere with the enjoyment of her tenants. The exercise of her property rights should not harm the exercise of property rights of those she put into possession.

\(^{272}\) Ironically, dynamic denominators would find Loretto's relevant parcel to either not contain the right to exclude (she transferred it to her tenants for value), or to consist of the entire fee and present possessory rights of the tenants and, even though the trespass occurs in the common areas, those areas are interrelated to the areas that have been transferred to the tenants.
right that traditionally includes the right to exclude the lessor and the rest of the world.\textsuperscript{273} She has already been paid, presumably fair market value, for the right to exclude from the leased premises.\textsuperscript{274} For this calculation, we would find that, upon viewing the land transactions over time, the landowner may have already sold the right to exclude cable service and therefore did not lose any property right she possessed when the regulation was enacted. This is different from the dissent’s reasoning in \textit{Loretto}, which argued that by entering into the rental market the landowner became liable to provide certain services to tenants, including mailboxes, fire prevention equipment, and the like.\textsuperscript{275} The dissent discussed the government’s right to protect tenants in basic access to services.\textsuperscript{276} My analysis would instead focus on voluntary actions of the landowner which placed property rights in the hands of innocent third parties and whether those property rights reasonably included the right to exclude cable television service. By analyzing her preregulatory actions in severing the property into leaseholds, we find that she has already been compensated for giving up an expectation of exclusive possession.

Similarly, the surface rights created by the coal companies in \textit{Mahon} would be analyzed along the same axis. Because the coal companies were directly responsible for severing their fees simple into mineral, support, and surface estates, they should owe a duty not to harm the enjoyment of those they put into possession of the surface lands. How this severing would work in determining the relevant parcel is even easier with \textit{Mahon} than with \textit{Loretto}. In the former, we would consider the relevant parcel to be the fee simple absolute before severance of the surface lands. The effect of the regulation on the fee simple would be to effectively foreclose severance, forcing the coal companies to absorb the cost of destruction of the surface estate. Since those companies that already sold the surface rights presumably received fair market value for the surface estate, they have already received compensation. Hence, in not allowing the coal companies to destroy the surface estate for which they already received payment, the regulation merely prevents them from receiving double payment, first when they sell the surface, and then when they destroy it without liability to the surface owner.

Both \textit{Loretto} and \textit{Mahon} were cases in which a landowner had severed the fee, functionally (into leaseholds and reversionary rights to possession) and vertically (into mineral, support, and surface estates), retaining only a

\textsuperscript{273} STOEBUCK & WHITMAN, supra note 147, at 255–56.

\textsuperscript{274} The question then is whether cable television access is included in the right to possession she sold to her tenants, or is a right she retained and for which she should receive additional compensation. Although the Court may be implying the latter, the complete lack of discussion of such reasoning implies that it instead considered Ms. Loretto no different from any other fee simple absolute owner of land. Courts today would almost certainly agree that a right to cable television access is part of the tenant’s leasehold, likely finding that over time the landowner has already been compensated in rent to give up the right to exclude cable television services.

\textsuperscript{275} See \textit{Loretto}, 458 U.S. at 452 (Blackmun, J., dissenting) (explaining the other physical items a landlord must provide a tenant).

\textsuperscript{276} Id.
fraction of the fee, and the regulation at issue imposed a duty not to harm the severed interests. In that sense, the two cases are easy. A similar process works when calculating the relevant parcel for land that is severed horizontally. Consider again the case of David Lucas, who was a part owner of the Wild Dune Development on the Isle of Palms, South Carolina. As part owner, he participated in the development and sale of numerous residential lots. Nearly a decade after commencing development, Lucas bought two of the last four vacant lots in the development. When the South Carolina legislature enacted the Beachfront Management Act in 1987, it enlarged the areas of designated critical beachfront land, thus precluding development on Lucas's two lots.

As part owner of the entire development, at one time Lucas owned significantly more than the two lots at issue in the case. But after the partnership conveyed all the rest of the lots, Lucas bought out the outstanding partnership's interests in the two lots which were later to be restricted. It would be unfair to view the relevant parcel as the entire development because there were other owners. But it would be fair to view the relevant parcel as his proportional interest in the entire parcel before development, or perhaps the exchange value of those severed lots. To the extent the severance created lots that were too small and thus vulnerable to erosion, Lucas had a part in creating two particularly vulnerable lots by not leaving sufficient buffer land to accommodate erosion.

Of course, what if instead of being active as the developer and partner in Wild Dune Development, David Lucas had been simply an innocent buyer of these two lots—a man with no other ownership or investment interests in land in the area, and a reasonably astute investor who honestly believed that the lots would not likely be subject to any further beachfront regulation? For such an owner, the relevant parcel would be determined to be the two lots, for there would be no earlier window that would yield a different denominator. To the extent the regulation destroyed 100% of all economic value, and Lucas had not participated in any way in the actions that made

279 See supra note 59.
280 Lucas's situation is similar to the landowner on Beacon Hill who built too close to the lot line and was therefore unable to recover for damage when his neighbor undermined his lateral support. Because Lucas severed the larger acreage into lots, he made the two affected lots too small by not giving them enough upland space on which to build and still have enough tidal land to respond to the tremendous changes caused by beach erosion. Secondly, Lucas is responsible for placing the other severed lots into the possession of innocent third parties. To the extent his building on his two lots might cause additional erosion to the previously severed lots, he also owes a duty not to use his retained land to harm the property rights he created in his innocent buyers. Both the reciprocity rule and the severance rule would suggest that we determine the relevant parcel in this case as his proportional share in the entire development.
the land vulnerable to the regulation, he would be entitled to compensation by the state for the destruction of his property rights.281

The examples above all concern some form of severance and subsequent regulatory harm in which the landowner's act of severing the property made either his own retained property or the property he sold to innocent buyers vulnerable to invasion or destruction. The regulations all attempted to shift the cost of that destruction back onto those who severed the property in the first place or prevented shifting that burden onto innocent buyers. As a matter of fairness, and in concert with traditional property laws on unity of title and implied warranties, these cases are relatively easy. We could perhaps even argue that Loretto, Mahon, and Lucas were all wrongly decided simply because the regulations at issue prevented the landowners from harming other innocent property owners and, under the doctrine of sic utere, did not take a right they had in the first place.282

Thus, one bright-line rule of dynamic denominators is that where a regulation imposes a restriction or causes loss in value to a parcel of retained land for the principal benefit of land once owned by the same landowner and now severed, the relevant parcel should be deemed the entire parcel before severance. Ms. Loretto's building before the lease, the Wild Dune Development before severance into residential lots, and the fee simple absolute of the coal companies before sale of the surface estates should be deemed the relevant parcel because the landowner was responsible for the severance, reaped a benefit from the severance, and owes a duty to the innocent grantees not to destroy the property rights the landowner made possible. To the extent the regulation merely prevents the landowner from harming the rights of her grantees, and she received valuable consideration from those grantees for the property rights, she has already received adequate compensation for the restrictions on her retained land.

But in the absence of unity of title and severance, how would dynamic denominators work for restrictions aimed at preventing harm to strangers in title, like neighbors or the general public? To some extent the severance rule may drop out and the reciprocity rule may take up the slack. If a landowner's actions have caused the regulation to work particular hardships, such as in the instance where a landowner has built too close to the lot line, left inadequate setbacks, or has dredged a nonnavigable pond to make it navigable, the landowner is directly responsible for any impact associated with imposition of the regulatory regime.283 Consider the case of Kaiser 281

However, might he not also have a claim against the grantor of his two lots for making the lots too small? If the developer should reasonably have known that those lots would suffer destruction from tidal erosion, then the developer may be liable for selling a piece of land that would be unsuitable for the purpose for which it was sold. Again, we are back to the warranty of quiet enjoyment and the warranty of suitability that a landowner owes to innocent purchasers of property the landowner has severed.

282 Both the nuisance exception and the background principles of Lucas might provide justification for a different outcome in all three of these cases. But dynamic denominators go even further.

283 See Kaiser Aetna, 444 U.S. 164 (1979) (presenting the United States's argument that the
Aetna in this regard. By dredging a channel in a nonnavigable pond to access a private marina, the plaintiffs knowingly made their land susceptible to the federal navigational servitude. If we view the landowner's actions in making itself vulnerable to the navigational servitude as similar to the landowner who built too close to his lot line, thus infringing on neighboring or public property rights, then the rights allegedly taken by the regulation were actually given up by the landowner through prior voluntary actions.

But beyond bright-line rules for harm caused to severed lots or landowners' actions making themselves especially vulnerable to the harm caused by regulation, the line becomes much fuzzier in the context of landowner actions affecting economic value or landowner actions causing harm to diffuse public goods. The dynamic denominator rule becomes much more complex when the regulation does not prevent immediate harm, but rather destroys the economic value of property in the name of aesthetics, harmonious and orderly development, or of regulating for compatible uses that have diffuse beneficial effects on neighboring land. There may be a distinction between zoning a parcel into disutility for the aesthetic benefit of a neighborhood, and preventing development of a parcel because it will cause surface water runoff, block light and air, or increase erosion of neighboring beachfront land. Although courts have rejected the notion that the only obligations that are appurtenant to land are those that provide a "physical advantage in the occupation of the land," it is not so easy, under traditional rules of property law, to require that land be used in such a way as to confer benefits on neighboring land.

Of course, there are theoretical difficulties with the distinction between harm-prevention and benefit-conferring in the regulatory takings context. Any theory of dynamic denominators must provide some general way to chart a course between the Scylla of the distinction between harm and benefit problem and the Charybdis of the economic value as property right problem. As suggested earlier, the court in Florida Rock IV was not gazing at its navel when it split over the issue of whether compensation was due simply for destruction in value, or whether that value had to be tied to a definable property right in order to invoke the duty to compensate. Drawing some principled line in the sand for determining when the relevant parcel calculation should take into account prior actions by landowners that affect economic value of their property and when it should not is very difficult.

So let us assume a couple of things. First, we will assume that economic value is affected by general market variables over which a landowner has...
little or no control as well as actions taken by landowners to improve the land or invest in the neighborhood. We should exclude such indirect, though perhaps very plausible, economic effects as those caused by a landowner's substantial donations to a county commissioner's campaign which ultimately result in a rezoning of the landowner's land. It would seem that no regulatory takings theory could adequately account for the luck of the draw, the fortuitous accident that causes a city's development to move right in the direction of a landowner's parcel, or the relative accident of discovering oil on one's land. So political activism and blind luck should be excluded.

At the other extreme, there are very intentional actions that landowners take to increase the value of their land. A developer may build mini-mansions on one hundred acres of pristine forest land which has the calculated effect of increasing the value of a piece of commercial land he retained that is perfect for a grocery store to serve the new development. Or a developer may agree to sell certain parcels of commercial land only so long as the buyer agrees not to put up a discount store that will undermine the value of the entire commercial development.289 In both instances, the landowners' actions are motivated by the desire to improve the economic value of his retained land. On the other hand, a landowner may reap the accidental benefit of owning land adjacent to a big development that suddenly makes her commercial land perfect for a grocery store. Can the law treat the developer who owns both the subdivision and the commercial land for the grocery store differently than the landowner who only owns the commercial land? Thus, if a new zoning ordinance is enacted that prohibits construction of the grocery store, are either or both entitled to compensation? If only one is entitled to compensation, when does the dynamic denominator rule tell us we should calculate the relevant parcel? The very significant problems attached to using economic value in determining the relevant property right demands a conceptual extension of the severance rule.

A more refined rule that admits the role of prior actions affecting market value, but not all fortuitous changes, would look to the interrelationship of economic value between severed land and retained land. Because a landowner should not be penalized for actions that simply improve market value of land,290 under the dynamic denominator rule, a landowner whose acts of severance elevate the value of retained land should not be entitled to the full benefit of the increase in value in a takings calculation only to the extent that the severed land increased in market value as a result of the retained land. In other words, we will not penalize a developer who expends money developing land in phase one of a development which causes an increase of value in the undeveloped second phase, so long as the value of lands in the first phase were not also elevated by promises of activities that would occur on the second phase. If a

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289 See, e.g., Whitinsville Plaza v. Kotseas, 390 N.E.2d 243 (Mass. 1979) (presenting this fact pattern on enforceability of restrictive covenants not to compete).

290 Because landowners should be encouraged to improve the value of land, no takings rule should discourage improvement.
developer builds houses on 90 acres of a 100 acre parcel and the remaining 10 acres increase in market value by 50% simply by virtue of the development of the 90 acres, those actions should not be taken into account in determining the relevant parcel because the increase is a result of investment and risk, and is an activity we want to encourage.\textsuperscript{291}

However, if the developer's retained 10 acres increase in market value by 50% and he also received 125% of the value of the homes in the first 90 acres because he promised that a marina or club house would be built on the remaining 10 acres, then the receipt of that extra value ties the 90 acres to the remaining ten acres so that all 100 should be considered the relevant parcel. Such a rule looks not to all actions by a landowner that increase market value of retained lands, but only to increases that are integral to increases on the previously sold land arising out of anticipated uses that are now precluded by regulation.\textsuperscript{292}

In determining the relevant parcel, the calculation would look to see if there is only a one-way increase in market value from the developed lands to the undeveloped lands that are now regulated and undevelopable, in which case the relevant parcel would include only the undeveloped and regulated lands.\textsuperscript{293} But if the market value of the severed and developed lands included expectations of development on the now-regulated retained lands, those severed lots should be included in the relevant parcel determination.

Now let us go back to the residential development with the commercial lot. If the landowner of the commercial lot did not own or participate in any way in the development of the residential subdivision, then the increase of value in his commercial lot was fortuitous and he should not be penalized when actions beyond his control raise the value of his land and a new regulation causes a significant loss. Economic value is properly a factor in determining what was taken, what property rights he possessed, and the level of compensation. But if the same landowner owns both the residential subdivision and the commercial lot, and he reaped a benefit in increased sales prices in the residential homes because of promises that the commercial lot would be used to build a convenient grocery store, then a downzoning of the commercial lot likely should not be compensable because the relevant parcel should include the residential as well as the commercial lands. They are integral to one another because their values are interdependent.

The primary distinction here is that in the former instance, the owner of the commercial lands has made no promises that the lot would be turned into a grocery store, has reaped no profit from any such promise, and may

\textsuperscript{291} This does not mean actions should not be taken into account under the reciprocity rule prong or the duty not to harm prong of the severance rule. Rather, if looking only at market value, those ninety acres would not be included.

\textsuperscript{292} See Dist. Intown Properties, 198 F.3d 874, 880–82 (D.C. Cir. 1999) (applying such a rule); Waterman, 745 A.2d 1000, 1021–22 (Md. 2000) (applying such a rule).

\textsuperscript{293} This is assuming there are no other reasons for linking them, as the reciprocity or severance rules might require. This simply offers a way to evaluate the complex role of landowner actions that affect economic value, not prior actions that might otherwise require inclusion of developed lands into the relevant parcel.
certainly opt not to use the commercial land in such a way. In the latter instance, however, of a single developer who owns the land, the landowner does have some obligation to build the grocery store if the sales of the residential lots were made upon promises that he would build it. He owes a duty to his severed lots. Further, he has already received some compensation in terms of increased value of the residential lots from the plans he promulgated to build the grocery store. A regulation that prohibits the construction due to the presence of wetlands does not cause him as much economic harm because he has already received some payment for that land; his value has not decreased by 100%. But the landowner who owns only the commercial lot, and who received a windfall in the increased value of the commercial lot by virtue of development of the subdivision, may be entitled to compensation when development is restricted because his actions did not influence the increased market value and he has not received any compensation from the development of the subdivision. The relevant parcel can clearly be only the commercial lot because that is all he has ever owned. Hence, the relevant parcel calculation should only step backwards to more extensive landholdings that have been severed prior to the regulation when the compensation for those severed lots included some increased value from the presence of the retained, now-regulated lot.

This complicated rule on reciprocal effects of market value tells us to consider severed and developed lots in the relevant parcel when there is an economic interdependence, but not when the value of the parcels are independent. This rule would apply only in situations in which the only link between previously sold lands and retained lands is this link in market value. If for some other reason, like severance duties or reciprocity, the relevant parcel should include the previously sold land anyway, interconnected market value is irrelevant (or is one additional reason for expanding the regulatory window and enlarging the relevant parcel). The rule on market value applies only when there is no additional reason to expand the regulatory window and include previously sold lands in the relevant parcel, but economic harm from the regulation is claimed by the landowner in a regulatory takings challenge.

There is another difficult line to draw, however, between acts of landowners that directly cause harm to neighboring land and can therefore be restricted without requiring compensation under doctrines of nuisance and under the reciprocity rule, and acts that only indirectly cause harm. Certainly, a landowner can be prevented from building on land adjacent to Lake Tahoe because the very construction directly causes harm to the publicly owned lake through runoff. But the harm line is more difficult to draw when it is less direct or is small on its own but pushes the system beyond the tipping point in terms of environmental impact. When a landowner develops 90 acres of homes and then finds his last 10 acres are regulated because they are in wetlands that are necessary for the town's water supply, further development is a threat to the public. Similarly, when the 10 acres of now-regulated land contain spotted owl (Strix occidentalis)

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habitats and cannot be disturbed, the harm prevented by the regulation is not a direct harm to neighboring lands, but is a harm to another public value, the value of diversity of wildlife.

In the former instance of direct harm to neighboring land like that in *Tahoe-Sierra* of runoff caused by development, the regulation is easy to justify. The reciprocity rule which prohibits harm to neighboring or severed lands would prevent building around Lake Tahoe without requiring compensation because the right to harm one's neighbors is not a stick in the bundle of rights in the first place. But the latter two examples of wetlands and endangered species are more difficult. Where the harm to be prevented is a diffuse public harm, there is much to support the idea that the public, as a whole, should pay. Preserving wetlands and endangered species can reasonably be taxed to the public as a whole because all development causes incremental harm, and it is virtually impossible to draw the line and treat later landowners differently than earlier landowners who participated in the problem by building and filling earlier wetlands without regulation.

Regulations prohibiting development of wetlands or endangered species habitats prevent harm to diffuse, public interests and in many cases may require compensation, despite the dynamic denominator rule. Thus, where a town's water supply depends on 100 acres of wetlands, and there has been no encroachment on that 100 acres, then the first landowner who is denied a permit to fill even 10 of those acres should be entitled to compensation because he is being asked to dedicate his land to the greater good of the entire town. Perhaps too, when the wetlands for the town had originally consisted of 1,000 acres and 900 had been filled prior to regulations that would have prevented such fill, and now the town must protect all 100 remaining acres or lose its water supply, there would seem to be an equally compelling argument for compensation because the landowner must dedicate his land to protecting the interests of the entire town. Drawing the line between earlier landowners who started the problem and later landowners who simply perpetuate or tip it is very difficult to do. I am not sure the dynamic denominator rule will provide a way to draw that line. But at least one line can be drawn.

Where a developer had originally owned all 1,000 acres of the wetlands, was responsible for filling and developing the 900, and had reaped a financial benefit in so doing, the prohibition against filling the last 100 acres is very different. Because the landowner directly contributed to creating the harm (the survival of only 100 acres by the filling of the other 900 acres), he has made 900 new households dependent on the 100 acres of wetlands and therefore should not, under the severance rule, be allowed to harm their interests. Furthermore, he has received some compensation in increased value of the 900 acres he has already severed from the existence of 100 acres of wetlands that guarantee a safe water supply. In this final example, the

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295 See *Lucas*, 505 U.S. 1003, 1051 (1992) (Blackmun, J., dissenting) (noting that "the state has not 'taken' anything when it asserts its power to enjoin the nuisance activity").

296 *Property and Expropriations*, supra note 18, at 16-17; *A Dozen Propositions*, supra note 18, at 268-70.
direct obligation to the 900 landowners whose rights the developer created justifies limits on his retained land to prevent harm to those rights under the severance rule. Consequently, the relevant parcel should be the entire 1,000 acres, not just the 100 acres of regulated wetlands. The landowner's voluntary development of 900 homes dependent on a safe water supply links the previously sold lands with the retained lands so that the proper calculation of the relevant parcel is the entire 1,000 acres.

These examples should show that not all regulatory takings claims by developers will result in a finding of no compensation. Only those claims by landowners who sever their land and make innocent third parties vulnerable to harm from activities on the retained land, or those landowners who act in ways to make their land vulnerable to the harm of regulation, will induce us to look to earlier times and earlier landholdings for determining the relevant parcel. Where a landowner only owns one parcel, and the entire parcel is heavily regulated against development, there is no need to adjust the timing of the relevant parcel calculation. This dynamic denominator theory, therefore, only affects those landowners who own large enough parcels to sever and sell off certain sections, those landowners whose prior development activities are substantial enough to affect market value of prior severed lands as well as retained lands, or those landowners whose development caused direct harm to neighbors or the public.

Critics will argue that such a rule has a disproportionate effect on large landowners and is therefore unfair. Why should their larger landholdings be calculated into the relevant parcel analysis when they no longer even own those holdings at the regulatory moment? In response, I suggest this is a fairness rule that recognizes the traditional common law duties created by severance, a rule of equity that prohibits landowners from acting in ways that unfairly disadvantage neighbors, and a rule of justice that says compensation will be paid only to landowners who are asked to dedicate their land to the public good. Landowners who have already reaped payment in some form for the value of the now-regulated land cannot complain that they are denied compensation. In some sense, the dynamic denominator rule penalizes large landowners who are active players in the land development market. But it also recognizes that those landowners benefited from a market that allowed development of the earlier phases of their land and that the public is not required to guarantee the highest and best use of all land. Where value has been obtained, by the sale of surface lands in Penn Central, the rental of apartments in Loretto, or the sale of 900 homesites that depend on a reliable source of groundwater, the Constitution should not demand that the public grant the landowner a windfall through double compensation.

297 Payment can include profits of nonliability for externalities imposed on other landowners or the public.
VII. Do We Really Need Dynamic Denominators?

Two important points need to be addressed. The first is whether the reciprocity rule and severance rule are already incorporated into the economic impact, character of the governmental action, and reasonable investment-backed expectations prongs of Penn Central balancing. I do not believe so, and I do not believe they should be brought into that calculation. In the first place, while we might all enjoy the open-endedness of Penn Central balancing, there are benefits to a certain amount of line-drawing. Placing these issues under the relevant parcel means that, as a threshold matter, large property holders likely will be treated differently than small property holders, and strategic severance will no longer be rewarded. The courts will also have fairly coherent rules for determining the relevant parcel rather than the neither necessary nor sufficient factors listed in Ciampitti. If the relevant parcel calculation is cleaner and easier to make, perhaps there will be fewer takings cases and hopefully lower administrative costs.

Second, I assert that severance actions and harms caused by previous activities are easier to determine than the reasonableness of expectations for future development. We can easily determine if a landowner sold land prior to the regulation that made her more susceptible to the regulatory harm. But whether it was reasonable for a landowner to believe she could build a 77-lot development on 15 acres of wetlands, in 1968 or in 1988, is much more difficult. Similarly, economic impact is easier to determine after the fact rather than before. A developer who profited from promises that a marina will be built on retained land can be held accountable for that profit. Conversely, the landowner’s claims that he will lose millions because he is prohibited from building a marina are more difficult to prove.

Third, while I value the flexibility of ad hoc balancing under Penn Central and decry the creation of categorical rules and other bright lines, the relevant parcel calculation has an incredible ability to influence a case at the same time the courts have developed very limited ways of dealing with it. By providing a theory based on fairness and equity, and dependent on landowner actions and choices, the relevant parcel issue becomes much more coherent, yet still retains room for balancing at the next stage. My theory of dynamic denominators simply seeks to contextualize and rationalize the question of whether landowners are in fact similarly situated, or whether their actions over time reveal the complex interplay of their own choices, their neighbors’ choices, and the regulatory response to conflicting and ever-scarcer property uses.

Until now, the relevant parcel determination has been one of passive ownership—asking what property rights and holdings a landowner possesses at a given point in time. Not only does this artificially focus on legal rights that are ever-changing, it obscures the profound difference between ownership of property rights and the exercise of those property rights. My theory of dynamic denominators turns away from static ownership rights to voluntary actions that directly cause harm or immediate and specific uses that conflict with one another. We could all have the most robust and extensive property rights imaginable and never have problems if
we all chose not to exercise them. A theory of dynamic denominators recognizes that the problem lies in competing actions, not in competing legal rights.298

Second, the Court needs to think seriously about the theory behind the Takings Clause. If, as many landowners allege, and many scholars reject,299 the Takings Clause is essentially a form of insurance to protect against diminution in value from business practices and investments, then a snapshot view of regulatory effects is appropriate. But if, on the other hand, the Takings Clause was not designed to insure against gains and losses in speculative investments, but rather to insure only against total unrecoverable losses, then prior actions and prior profits matter. I see no reason why a speculator who invests in the dot-com market has no recourse if he loses money due to SEC regulations, while a real estate developer or mining company is insured against losses caused by EPA regulations. There is no logic, only the trite reply that taking someone's home is different from taking his money. Dynamic denominators puts teeth into that reply. Yes, taking a man's birthplace, his retirement home, or even his beach access is different from constraining his ability to develop and exploit land for a profit. The big-market player is not similarly situated to the retiree who loses his retirement home.

The idea that Takings Clause jurisprudence requires some principled way to distinguish between business-as-usual investments and personhood-dependent things is at the heart of dynamic denominators.300 This theory does not preclude the investor from recovery, but it does further the

298 Dynamic denominators also provide a way to break out of the relativism of Coasian property rights. Coase argued that incompatible land uses, in the absence of transaction costs, are fundamentally equal; that preventing the polluter from poisoning the air harms his property rights just as much as allowing him to pollute harms his neighbor's rights to clean air. See generally Coase, supra note 229. Though I question Coase's refusal to accept that normative values are inherent not only in deciding between competing uses, but in choices to make certain entitlements property rights in the first place, dynamic denominators provide an escape to Coase's relativism. By focusing on the exercise of property rights, and not possession of property rights, the reciprocity rule provides a necessary buffer between competing rights. If the rule is that you cannot exercise your property rights in any way that, if all similarly situated parties did likewise, would lead to harm, then there is a natural brake built into the theory to prevent exactly the competing uses contemplated by Coase. Although Coase admitted that a property regime had to make normative decisions when property rights competed, he argued that the two positions were equal from the perspective of the property rights themselves. That assumes, however, that property rights exist as separate, distinct elements of a complex legal regime, and are not fundamentally based on the values they serve in human flourishing. Id. at 8.

299 Krotoszynski, supra note 228. Also, Alyson Flournoy, whose invaluable comments on a draft of this paper helped me to see the relevant differences between the Takings Clause as insurance against risk and as insurance against total wipe-outs, suggests that implicit in the Armstrong principle of fairness and justice is the assumption that landowners, like all property owners, assume a certain amount of risk that values will fall or uses will be restricted. The Takings Clause certainly was not designed to rectify every such harm. Instead, it more logically represents a collective understanding that certain losses are too great to bear alone, and that protection against such losses should only be provided where a property owner has acted reasonably, both in terms of expectations and in terms of attempting to avoid losses through reasonable acts of protecting his or her investment.

300 See generally Radin, supra note 82.
background principles of a private property regime—the fostering of
democratic values, individual autonomy, and protection of life-affirming
uses of resources. The Takings Clause, I argue, was intended to protect the
individual from governmental overreaching; it was not intended to protect
big business in its utmost exploitation of resources at the expense of
individual small-property holders.

VIII. CONCLUSION

The rule of dynamic denominators may seem radical, but it is important
to realize that this expanded notion of the relevant parcel does not simply
result in compensation being denied to real estate developers like David
Lucas while allowing compensation to the retired couple who invested their
retirement savings in a parcel of beachfront land on which they planned to
build their dream house. Rather, just as we recognize that regulations have
dynamic effects over time and that landowners may not survive the amount
of time necessary to ripen an inverse condemnation claim, landowners’
actions have dynamic effects over time and the takings analysis should
examine pre-regulation actions that make a landowner susceptible to the
harm purportedly caused by a restrictive regulation. If a person owns fee
simple absolute to 500 acres and she knows that the spotted owl is a
protected species whose habitat is not to be destroyed, she should not be
able to sell everything she owns except the five trees in which there are
spotted owl nests and then claim a 100% taking of those five trees.301 Such
strategic actions defeat the purpose of the regulation as well as undermine
the intent of the just compensation clause.

Moreover, the dynamic denominator rule takes traditional rules of
equity that are applied to private transactions and inserts them into the
takings equation through an expansion of the regulatory window and the
relevant parcel calculation. One might argue that this is simply an extension
of the background principles and nuisance exception of Lucas.302 But I
disagree. The Lucas rules, according to Justice Scalia, would apply only to
traditional property rights, maybe even core sticks only. The dynamic
denominator rule, on the other hand, would allow a way to factor economic
value into the relevant parcel calculation as well as acknowledge the role of
landowner behavior in the regulatory marketplace. Regulations generally do
not rise, full-blown, from the head of some legislative body. They tend
instead to be reactive to increasing harms and predations caused by land
development.303 To the extent landowners participate in or reap benefit from
activities that contributed to the harms, their claims of constitutional
violations should be viewed more skeptically.

301 Ironically, the Oregon Court of Appeals awarded compensation for a very similar action
involving bald eagles (Haliaeetus leucocephalus), rather than spotted owls, in Coast Range
303 See Property and Expropriation, supra note 18.
Now that the Court has reaffirmed the importance of *Penn Central* balancing for the majority of takings cases, and has supposedly rejected temporal and vertical severance while allowing only limited functional severance, it needs to clarify further its denominator rules. Not having done so at all in the horizontal severance context, and having muddled up most of the other severance contexts, the Court is well-poised to adopt a rule like that of dynamic denominators. Such a rule would treat landowners differently, an outcome that will be criticized by the Epstein crowd. At the same time, however, it can accommodate many of the intractable line-drawing problems facing the Court in both the relevant parcel and timing calculations. And it draws on traditional rules of equity already at work in private property relations. Opening the regulatory window to recognize the dynamic nature of property and the reciprocal impact of land-use decisions through adoption of such a rule will lead to more coherent outcomes and will move us closer to balancing the goals of harm-prevention through regulation and fostering responsible use of land.