Temporary Takings, *Tahoe Sierra*, and the Denominator Problem

by William W. Wade

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Summary

Hundreds of briefs, decisions, and journal articles debating "how much loss is enough" should be sufficient proof that the *Keystone Bituminous* "taking fraction" provides poor guidance to decisionmaking in partial regulatory takings. The *Penn Central* court intended to measure the severity of economic impact by interference with distinct investment-backed expectations. Where lost income from use of the property is at stake, standard economics requires the denominator in the "taking fraction" to be the owner's investment in the property. Instead, too many judicial decisions have obscured the clear economic language of P*enn Central* with musings about whether an owner's expectations of regulatory prohibitions were reasonable or not. The Federal Circuit Court of Appeal's 2007 *Cienega X* opinion invoked *Tahoe Sierra*'s temporal parcel to fatally confound the denominator problem. *Cienega X* proposed either real property value or earnings over the entire life of the property for the denominator. Neither is theoretically correct to evaluate severity of economic loss from proscribed use of property.

I. *Tahoe Sierra* Was Litigated as a *Lucas* Taking Without Evidence of Temporary Losses

A. *Confusion About Measurement and Application of the Denominator in Temporary Takings*

The *Tahoe Sierra*[1] decision expanded *Penn Central*'s geographic parcel-as-a-whole to include a temporal dimension to deny a regulatory taking. For 10 years, this temporal parcel concept has bedeviled the *Penn Central* test[2] of temporary takings cases. *Penn Central* established three factors that have particular significance to the decision to pay compensation for a regulatory taking: the economic impact of the regulation on the claimant; the extent to which the regulation has interfered with distinct investment-backed expectations (DIBE); and the character of the government regulation.[3] The temporal parcel expanded *Penn Central*'s parcel as a whole to include "the remaining life of the property." Ten years is a suitable time to consider the results of this change on regulatory takings cases.

Tahoe Sierra involved the question of whether a temporary building moratorium that prevented economically beneficial uses of fee simple residential properties amounts to a taking of private property in view of the remaining life of the property. The parcel as a whole is often referenced as the denominator of a taking fraction by which the courts benchmarked the severity of the economic loss.

Tahoe Sierra's temporal parcel confounded the U.S. Court of Appeals for the Federal Circuit temporary takings decisions[4] in ways at odds with standard economic theory and practice. With no guidance from the U.S. Supreme Court as to measurement and application of the temporal dimension, different panels of the Federal Circuit adopted different denominator concepts in *Penn Central* tests that

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1. Tahoe-Sierra Preservation Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 32 ELR 20627 (2002). The temporal whole notion actually arose in the U.S. Court of Appeals for the Ninth Circuit, which is discussed below.
2. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124, 8 ELR 20528 (1978).
3. *Id.* These have been thoroughly explicated in the 35 years since *Penn Central* with little or no advancement in courts' consistent understanding of how to apply the three factors. The author has added to this discussion, most recently in William W. Wade, *Sources of Regulatory Takings Economic Confusion Subsequent to* Penn Central, 41 ELR 10936 (Oct. 2011).
4. Cienega Gardens v. United States (*Cienega X*), 503 F.3d 1266 (Fed. Cir. 2007); CCA Associates v. United States, No. 2007-5094 (Fed. Cir. July 21, 2008); CCA Associates v. United States, 667 F.3d 1239 (Fed. Cir. 2011) (*pet. cert.* May 2012, *cert. denied* Oct. 10, 2012).

caused different outcomes with similar facts and data. *Cienega VIII* relied on the owner's investment in the property as the denominator, confirming a taking.[5] *Cienega X* adopted real property value of the rental building as the denominator and overturned *Cienega IX*'s[6] taking that followed *Cienega VIII*'s investment value of the denominator. Besides sharp exchanges among circuit judges,[7] millions of dollars of damages were awarded or revoked based on interpretation of the denominator value in the *Penn Central* test.

In the 2011 Federal Circuit *CCA* decision, the panel majority, while following *Cienega X*'s denominator precedent, made clear that the result of *Cienega X*'s analytic approach ran afoul of long-standing precedent, "which would eliminate all regulatory takings. Quite frankly, the selection of the *denominator* in these cases . . . determine[s] the severity of the economic impact."[8] Understanding of standard economic theories and practice, or the lack thereof, that underlie the denominator choices at the Federal Circuit is the topic of this Article.

This Article discusses the appropriate basis for the denominator in temporary takings cases concerned with *denial of the use of property*—not the fee simple property itself.[9] It discusses the evolution of the denominator parcel to include the time dimension and its misuse. Part II reviews the origins of the temporal whole denominator in *Tahoe Sierra*'s long slog through the U.S. Court of Appeals for the Ninth Circuit and district courts before reaching the Supreme Court. Part III explores the parcel as a whole in *Penn Central* and its conversion to a denominator concept in *Keystone Bituminous*. Part IV explains the economic correctness of *Florida Rock V*'s development of the denominator, its application in *Cienega VIII* and follow-on cases in the Court of Federal Claims, and the subsequent confounding of the denominator in *Cienega X* and its progeny, *CCA Associates* at the Federal Circuit. Part V confirms that *Tahoe Sierra*'s parcel as a temporal whole is miscast as a precedent for cases involving temporary loss of commercial income.

5. Cienega Gardens v. United States *(Cienega VIII)*, 331 F.3d 1319, 33 ELR 20221 (Fed. Cir. 2003). The *Cienega* line of cases all deal with the effect of a congressional change in the law that prohibited low-income apartment developers from exiting a Department of Housing and Urban Development (HUD) program in the 1990s to convert their buildings to market rents as anticipated under regulatory agreements 20 years prior.
6. Cienega Gardens v. United States (*Cienega IX*), 67 Fed. Cl. 434 (2005).
7. Judge Pauline Newman was on the *Cienega VIII* and *Cienega X* panels and had reasonably harsh words for her *Cienega X* colleagues: "This panel has no authority to revoke our prior decision in *Cienega VIII*. . . . The creative theories propounded by my colleagues for redetermining whether a taking occurred ignore the law of this case. . . . I must, respectfully, dissent." *Cienega X*, 503 F.3d at 1291-92, 1295.
8. *CCA Associates*, 667 F.3d at 1247 (emphasis added.)
9. The reader is referred to the abundant literature on considerations pertaining to the appropriate parcel for the denominator in real property cases, e.g., John E. Fee, Comment, *Unearthing the Denominator in Regulatory Takings Claims*, 61 U. Chi. L. Rev. 1535 (1994); Steven Eagle, *The Parcel and Then Some: Unity of Ownership and the Parcel as a Whole*, 36 Vt. L. Rev. 549 (2012); Dwight H. Merriam, *Rules for the Relevant Parcel*, 25 U. Haw. L. Rev. 353 (2003); and a host of others.

B. Tahoe Sierra*, a* Lucas *Case, Provides No Guidance for* Penn Central *Cases*

The 2002 *Tahoe Sierra* decision determined that a 32-month moratorium period could not be severed from the landowners' fee simple estates and decided that their property was not taken in its entirety considering the remaining life of the property.[10] The Court determined that

> [a]n interest in real property is defined by the metes and bounds that describe its geographic dimensions and the term of years that describes the temporal aspect of the owner's interest. . . . Logically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use because the property will recover value as soon as the prohibition is lifted.[11]

Compensation was denied under the *Lucas*[12] theory advanced by plaintiff counsel.[13]

The underlying *Tahoe-Sierra* district court did not litigate values that were lost during the moratoria because plaintiff counsel chose not to present such evidence within the case.[14] Plaintiff counsel argued that adoption of a moratorium would be the equivalent of a categorical taking in a direct condemnation case.[15] However, losses did exist, which are worth noting for the discussion of *Tahoe-Sierra* in follow-on cases. For example:

10. Tahoe-Sierra Preservation Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 331, 32 ELR 20627 (2002).
11. *Id.* at 331-32.
12. Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1019, 22 ELR 21104 (1992) ("when the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking"). Note that the language "all economically beneficial uses" is not tautologically identical to "all monetary value." Ah, but I get ahead of myself.
13. Michael M. Berger, Tahoe Sierra: *Much Ado About-What?*, 25 U. Haw. L. Rev. 295 (2003). The author relies on Michael Berger's article for its backstory and refers the interested reader to the article. Berger represented the landowners.
14. Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency, 34 F. Supp. 2d 1226, 1241, 29 ELR 21290 (D. Nev. 1999). "It may be that the instant plaintiffs could have produced evidence of [economic impacts], but they clearly chose not to do so. We assume that this was a result of a calculated choice by plaintiffs' counsel to concentrate on the plaintiffs' main contention that TRPA's actions resulted in a categorical taking. . . ." Berger came on the case late, too late to develop the evidence for a *Penn Central* case, which also would cost more than the landowners could afford.
15.

> Tahoe Sierra Petitioners—some 400 owners of individual, lawfully subdivided single-family residential lots around Lake Tahoe—were mostly married couples who bought their lots years ago—before the challenged regulations were even being considered—for individual retirement, vacation, or permanent homes for themselves and their families. The lots were all located in partially developed residential neighborhoods with paved roads and utility service. Homes had been built on many of the neighboring lots.

Berger, *supra* note 13.

> After a ten day trial in late 1998, the District Court found liability for a temporary taking, relying on the Supreme Court's holdings in *Lucas v. South Carolina Coastal Council*, for the proposition that a regulation that deprives a landowner of all economically beneficial or productive use is a compensable taking, and *First English Evangelical Lutheran Church v. County of Los Angeles*, for the proposition that a temporary taking during a planning moratorium requires compensation the same as a permanent taking.

Id. citing to Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency, 34 F. Supp. 2d 1226 (1999).

- Owners of property lost the opportunity to sell their lots for all or part of this time. Owners lost the time value of money during the period. Assuming that 15% would have been a reasonable return on their investment, the value of the property sale after 32 months was diminished by 49%.
- Owners who sought to build a home to live in lost the value of housing services at Lake Tahoe for all or part of the 32-month moratorium. As an owner of Tahoe property during this period, I assume that the value of housing services lost during this period could have ranged from $2,000 to $5,000 per month, depending on owners' income and architectural preferences. Lost housing services would range from $64,000 to $160,000 over the 32-month period for each of the 400 properties caught up in the moratorium—over $25,000,000 for the 400.

Even though the *sale* value of the property might recover at the end of the moratorium, property owners incurred unclaimed temporal losses. The time values of these losses, which were significant, were not argued in the case, presented as a *Lucas* taking of fee simple property[16] conjoined with *First English*[17] to assert that a temporary taking during a planning moratorium requires compensation the same as a permanent taking.

The *Tahoe Sierra* decision ignored time values of money, mistakenly concluding that because the value of the land bounced back at the end of the moratorium, landowners had lost nothing; value returned in time. The Court denied the taking under a *Lucas* claim and decided that the facts of the case should be evaluated in a *Penn Central* framework, providing no guidance as to how the temporal whole parcel may relate to *Penn Central* litigation.

II. Parcel as a *Temporal* Whole Arose Late in *Tahoe Sierra* Litigation History

In view of the subsequent application of the Supreme Court's parcel as a temporal whole ruling in various cases at the Federal Circuit, I will revisit the origins of the notion in the Ninth Circuit.

A. *Litigation Overview of Origins of Parcel as a Temporal Whole*

Tahoe Sierra only involved a 32-month moratorium when it was granted certiorari by the Supreme Court for the 1981-1984 phase of a series of moratoria. David Breemer's extensive 2002 article provides abundant contemporary history and insight about the case.[18]

The dispute had its origins in the 1970s, when the Tahoe Regional Planning Agency (TRPA) began implementing land use regulations in the Tahoe basin in an effort to halt the growth of algae in Lake Tahoe. The agency's efforts culminated in a 1981 *temporary* ban on development that, for many area property owners, remained in place post the Supreme Court 2002 decision. "Through [a] series of rolling enactments, TRPA . . . effectively blocked construction of [some Tahoe landowners'] homes for the past two decades, and that prohibition has become permanent."[19]

The Breemer article describes the plaintiffs' long slog through the morass of district and Ninth Circuit courts before getting to the Supreme Court in 2002.

> [T]he case of *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency* . . . produced five published federal district court opinions, almost an equal number of opinions from the Ninth Circuit, two denials of certiorari from the Supreme Court and [ultimately, the] Supreme Court opinion.[20]

After about 15 years of bouncing between district courts and the Ninth Circuit, Circuit Judge Stephen Reinhardt in *TSPC IV*[21] shifted the focus of the Tahoe dispute from the impact of TRPA's moratorium during its effective period to its impact over the entire useful life of the subject properties. The Breemer article explains the change.

> Writing for the unanimous panel, Judge Reinhardt agreed with the district court that the moratorium's constitutionality hinged on the application of the *Lucas* rule that a taking occurs when a regulation denies a landowner all economically beneficial and productive use of land."[22] "In Reinhardt's view, . . . 'the [claimant's] parcel as a whole' . . . has a 'temporal,' as well as spatial dimension." . . . Judge Reinhardt concluded that the court should look at the 'temporal whole,' that is, the indefinite useful life of real property, when considering whether the moratorium denied all economic use of the [subject] parcels. Judge Reinhardt's novel approach to the relevant parcel issue would ultimately . . . alter the constitutional and conceptual terrain surrounding takings challenges to temporary land use restrictions.[23]

Still relying on Bremmer:

> Once it determined that the impact of the moratorium must be weighed within an expansive temporal framework, the *TSPC IV* panel considered whether that impact

16. *Lucas*, 505 U.S. at 1003.
17. First English Evangelical Lutheran Church of Glendale v. County of Los Angeles, 482 U.S. 304, 328, 17 ELR 20787 (1987) ("if a particular government action would constitute a taking when permanently continued, a temporary action of the same nature may lead to a temporary takings claim").
18. J. David Breemer, *Temporary Insanity: The Long Tale of* Tahoe-Sierra Preservation Council *and Its Quiet Ending in the United States Supreme Court*, 71 Fordham L. Rev. 1 (2002).
19. *Id.* at 2, citing Michael M. Berger, *What's "Normal" About Planning Delay?*, *in* Taking Sides on Takings Issues: Public and Private Perspectives 273, 279 (Thomas E. Roberts ed., 2002).
20. *Id.*
21. Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency *(TSPC IV)*, 216 F.3d 764, 30 ELR 20638 (9th Cir. 2000).
22. Breemer, *supra* note 18, at 13.
23. *Id.*, citing *TSPC IV* at 776-77. Breemer's 2002 remark about altering the conceptual terrain of temporary takings, while prescient, understates what occurred when the Federal Circuit applied the concept to the calculation of the denominator.

amounted to a denial of all beneficial use of property within the meaning of *Lucas.* Noting that the temporally limited construction ban "preserved the bulk of the future developmental use of the property," Judge Reinhardt claimed this "future use had a *substantial present value*" . . . and concluded that the moratorium did not eviscerate all of the *present value* of the property. Consequently, the Tahoe landowners were not deprived of all economically beneficial or productive use of land.[24]

B. Economic Confusion at the Ninth Circuit

The Ninth Circuit decision noted,

> [t]he use of [the plaintiffs' property] runs from the present to the future. . . . By instituting a temporary development moratorium, TRPA denied the plaintiffs only a *small portion* of this future stream; the thirty-two months during which the moratorium was in effect represents a *small fraction* of the useful life of the Tahoe properties.[25]

Judge Reinhardt's "only a small portion" loss reminds me of Justice William H. Rehnquist's fateful footnote 13 in *Penn Central* calling attention to the majority's lack of definition for economic language used and concluding that a rule without definitions poses "difficult conceptual and legal problems."[26] The footnote points out politely that the majority was not schooled in the meanings of the economic terms used in their language. The same applies to Judge Reinhardt. Every banker knows that, assuming the example above, giving depositors back only $0.51 of every dollar deposited in the bank after 32 months is not much of a deal. Invoking, as Judge Reinhardt did, technical usage of present value language, he clearly misunderstood that returning the property to the owners did not return the "*substantial present value*" he claimed, even assuming only the 32-month moratorium. In fact, the owners' "economically beneficial use" evaporated in time in the same way as watching a stock dive on the New York Stock Exchange.

Not surprisingly, Justice Rehnquist dissented from *Tahoe Sierra.*[27] He argued that the length of the temporary TRPA moratorium was closer to six years rather than 32 months, which was longer than the two-year *Lucas* permanent coastal prohibition of use of beachfront property.[28] He agreed with the district court that owners were "deprived of all economically viable use of their land."[29]

Like the bedrock *Penn Central* decision, *Tahoe Sierra* rests on yet another misunderstanding of economic theory: time values of money are at the heart of people's investment decisions. The *Penn Central* decision affirmed that "New York City law does not interfere in any way with the present uses of the Terminal. . . . Appellants may continue . . . not only to *profit* from the Terminal but also to obtain a reasonable return on its investment."[30] The Penn Central had ceased to exist as a railroad in 1976 and was operated as Conrail under federal bankruptcy protection. The majority's reasonable return conclusion was mistaken at the time. A reasonable return for a company operating in bankruptcy is self-canceling. The terminal operation was taken over by New York City's Metropolitan Transit Authority in 1983 in a state of disarray[31]—proving, of course, that Justice Rehnquist was correct in his insightful footnote 13.

III. *Penn Central*'s Parcel as a Whole Became the "Denominator Problem"

A. Penn Central *Corrected the Lower Court's Parcel as a Neighborhood to Parcel as the Whole Block*

The Supreme Court first enunciated the parcel-as-a-whole rule in *Penn Central Transportation Co. v. New York City.* Examining how to analyze the significance of the city of New York's regulation on the Grand Central Terminal, the Supreme Court corrected the lower court's[32] notion that the profits earned from an agglomeration of all the property in the vicinity owned by Penn Central—hotels, office buildings, and other valuable real estate[33]—mattered in the consideration of a taking:

> "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*—here, the city tax block designated as the "landmark site."[34]

The size of the parcel is the essential characteristic in *Penn Central*'s coinage of the parcel as a whole. The parcel was determined to be the city tax block instead of the parcel as the whole neighborhood invoked by the lower court to deny the permit.[35] The parcel as a whole has developed

24. *Id.* at 16, 41.
25. *TSPC IV*, 216 F.3d at 782 (emphasis added).
26. *Penn Central*, 438 U.S. at 149, n.13 (Rehnquist, J., dissenting).
27. *Tahoe Sierra*, 535 U. S. at 343 (Rehnquist, J., dissenting).
28. *Id.*
29. *Id.* at 346, citing to 34 F. Supp. 2d 1226, 1245 (Nev. 1999).
30. *Penn Central*, 438 U.S. at 136.
31. In 1970, Penn Central became the largest bankruptcy in U.S. history. Metro North, a subsidiary of New York's MTA, took over operation of Grand Central Terminal in 1983 under a lease from Penn Central. Metro North described their takeover of Grand Central in 1983 as salvaging it from "the wreckage of Penn Central." Telephone conversation with Marge Anders, Public Information, Metro North (Sept. 22, 1998). Grand Central Terminal was eventually restored at public expense by the MTA.
32. Penn Cent.Transp. Co. v. City of New York, 397 N.Y.S.2d 914, 920, 7 ELR 20579 (N.Y. 1977).
33. Steven J. Eagle, *The Parcel and Then Some: Unity of Ownership and the Parcel as a Whole*, 36 Vt. L. Rev. 549, 566 (2012) (which he describes as "[a] classic case of agglomeration").
34. *Penn Central*, 438 U.S. at 130-31 (emphasis added).
35. *Id.* at 116, citing to 377 N.Y.S.2d 20, 6 ELR 20251 (N.Y. App. 1975) ("even if the Terminal proper could never operate at a reasonable profit, some of the income from Penn Central's extensive real estate holdings in the area, which include hotels and office buildings, must realistically be imputed to the Terminal").

into what the Federal Circuit has termed "the denominator problem."[36]

The New York Court of Appeals denied Penn Central's building opportunity in the air space, instead imputing to Penn Central's owners and investors "air" dollars associated with Penn Central's "heavy real estate holdings in the Grand Central area . . . ."[37] Judge Charles D. Breitel failed to recognize that the existing hotels and office buildings already laid claim to the flow of income that he arbitrarily chose to share with Grand Central in lieu of the income from the proposed 55-story building. He contributed the Breitel Doctrine of legal-economic nonsense: "[P]roperty may be capable of producing a reasonable return for its owners even if it can never operate at a profit,"[38] as a justification for requiring Penn Central to maintain the facade of the Grand Central Terminal.

While Judge Breitel's "judicial ad hocery"[39] arbitrarily agglomerated income from the whole neighborhood surrounding Grand Central, Justice William J. Brennan, at least, narrowed the parcel as a whole to only the city tax block,[40] but assumed that the Terminal was earning a reasonable profit even though the property was in bankruptcy. Had the Court conceived the disputed air rights as the use of the real property, and correctly measured income with and without the office building, arguably, the outcome would have been different; i.e., had the Court actually undertaken a *Penn Central* test, which it did not.[41] Disallowing the income from the office building of Penn Central's bundle of property rights resulted in the whole edifice becoming a burden on New York taxpayers.[42]

B. Keystone Bituminous *Converted the Parcel as a Whole to the Denominator*

The *Keystone Bituminous* decision[43] played a role in the *Tahoe Sierra* Court's extension of *Penn Central*'s parcel-as-a-whole rule from a "geographic" ("metes and bounds") dimension to include a "temporal" dimension.[44] The Court's ruling in *Keystone Bituminous* confirmed the whole parcel interpretation but added an important nuance to the language: the transformation of the parcel as a whole to a search for a *denominator*:

> Because our test for regulatory taking requires us 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."[45]

The Federal Circuit converted the search for the relevant parcel into the denominator problem because, citing back to *Keystone Bituminous*, cases have compared the value that has been taken from the property with the value that remains in the property.[46] Both *Loveladies Harbor,* cited above, and *Palm Beach Isles*, cited here, were cases about the horizontal measurement of land to avoid strategic severance. Where the *use* of a defined land area is denied temporarily by government proscription, its metes and bounds do not govern the choice of a denominator.

Keystone denied the taking recognizing that the economic viability of the claimants' mines would not change because the total coal in place was so large, compared to the support coal, that the support reserves had little value. The evidence within the decision shows that the Pennsylvania Subsidence Act required 27 million tons to be left in place as support coal. The total coal in place in the mines surveyed at 1.46 billion tons; thus, the Act only affected 2% of the coal in place.

The correct economic fact not discussed in the case was that the coal had virtually no *present value* to the miners; plaintiffs demonstrated no economic impacts within the case.[47] But the support coal was worth a great deal to the surface landowners. *Keystone* was decided on the first prong of the *Agins* test.[48] Preventing a harm—subsidence—was judged to have sufficient weight as a legitimate state interest to avoid payment of compensationIn both *Tahoe Sierra* and *Keystone Bituminous*, the Court had in mind the metes and bounds of real property: the raw land at Lake Tahoe and the coal in place in Pennsylvania. Do notions of the denominator derived from cases about real property translate to cases involving lost use of the property? Economic losses in regulatory takings cases may arise from diminution of value of the tangible assets (real property) or from the proscribed economic use of the property (intangible

36. Loveladies Harbor, Inc. v. United States, 28 F.3d 1171, 1179-80, 24 ELR 21072 (Fed. Cir. 1994). The discussion of the problem in this section of the decision hinges on physical segments of land, not unlike *Penn Central.*
37. *Penn Central*, 397 N.Y.S.2d at 920.
38. *Id.*
39. Gideon Kanner coined the phrase in *Making Laws and Sausages: A Quarter-Century Retrospective on* Penn Central Transportation Co. v. City of New York, 13 Wm. & Mary Bill Rts. J. 653 (2005).
40. *Penn Central*, 438 U.S. at 136-37.
41. For the "rest of the story," see Kanner, op. cit. n.39.
42. *See Penn Central*, 438 U. S. at 141.
    > At the time of the landmark designation, Penn Central was in a precarious financial condition. In an effort to increase its sources of revenue, Penn Central had entered into a lease agreement with UGP Properties, under which UGP would construct and operate a multistory office building cantilevered above the Terminal building. During the period of construction, UGP would pay Penn Central $1 million per year. Upon completion, UGP would rent the building for 50 years, with an option for another 25 years, at a guaranteed minimum rental of $3 million per year.
43. Keystone Bituminous Coal Assn. v. DeBenedictis, 480 U.S. 470, 17 ELR 20440 (1987).
44. *Tahoe Sierra,* 535 U.S. at 331-32.
45. *Keystone Bituminous*, 480 U.S. at 497, citing Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 Harv. L. Rev. 1165, 1192 (1967) (emphasis added).
46. *See, e.g.*, Palm Beach Isles Assocs. v. United States, 208 F.3d 1374, 1380 n.4, 30 ELR 20481 (Fed. Cir. 2000), *aff'd on reh'g*, 231 F.3d 1354 (Fed. Cir. 2000).
47. *Id.* at 471. "[P]etitioners have never claimed that their mining operations, or even any specific mines, have been unprofitable since the Subsidence Act was passed." The petitioner's lawyers brought this takings case with no discernible economic damages, and with only a gobbelty-gook response to the question about the effects of the Act on their clients: "An assessment of the actual impact that the Act has on petitioners' operations 'will involve complex and voluminous proofs,' which neither party [is] currently in a position to present." *Id.* at 493. Failure to provide evidence of economic impact on their clients offended the first particularly significant *Penn Central* factor.
48. Agins v. City of Tiburon, 447 U.S. 255, 260, 10 ELR 20361 (1980).

assets). In *Nollan*[49] and *Dolan*,[50] the tangible assets were devalued by the governments' land dedication requirements. In *Whitney Benefits*,[51] the mining opportunity, an intangible asset, was foreclosed. *Penn Central* dealt with an intangible asset—the foreclosed lease income from the new office building over the existing terminal. The relevant question not answered by the case is whether the lease income from the foreclosed opportunity would have saved the company. The *Penn Central* test might have turned out differently if the lease income had been treated properly within the numerator and compared to a correct denominator, as discussed in the next part.

IV. The Denominator Problem Has Evolved in Federal *Penn Central* Cases

The Supreme Court noted in *Lucas* the lack of clarity in determining "the property interest against which the loss of value is to be measured. . . . [T]his uncertainty regarding the denominator in our 'deprivation' fraction has produced inconsistent pronouncements by the Court."[52] Here again, another footnote from the Supreme Court matches the subsequent results of its decisions better than the decision itself. South Carolina bought the land outright for Lucas' original purchase price plus interest—and then resold the land to a developer as two building sites! Apparently, the state of South Carolina rebalanced the public needs when its own money was at stake.[53]

A. Florida Rock V *Correctly Defined the Denominator*

Florida Rock V,[54] a gravel mining case in South Florida, correctly identified and defined the denominator, which is the essential "property interest against which the loss of value is to be measured." *Florida Rock V* established "a logical framework [to evaluate a partial taking] based upon well-established rules and principles . . . a stable framework," to undertake the balancing called for in the *Penn Central* three factor balancing test.[55] *Florida Rock V* examined the economic prongs of the *Penn Central* test and provided quantitative answers to two straightforward questions related to a change in the federal regulatory regime that prevented Florida Rock from mining on its property.

- Has the value of the property been significantly diminished?
- Do revenues after regulatory change recoup investment in the property?

The *Florida Rock V* decision examined the before and after values of the property based on expert appraisal testimonies in the record, and adopted a 73.1% diminution in value of the property.[56] Of critical importance to takings jurisprudence, the decision clarified that the comparison of *before* and *after* values as used in *Keystone Bituminous* is not a sufficient economic decision benchmark.[57]

> Even though [73%] is obviously a significant destruction of the value of plaintiff's property, it is *not dispositive* of the issue. In determining the severity of the economic impact of permit denial, the court must take into account whether Florida Rock was able to *recoup its investment* subject to the regulation.[58]

Florida Rock V adopted plaintiff economist's estimate to establish the investment basis in the property, $6,000 per acre, as the denominator of the taking fraction and compared returns *before*, $10,500, and *after* the change in regulation, $2,822, to that investment basis to determine that no "reasonable return" was possible.[59] This ruling established the economically correct taking fraction to require measurement of the investment in the property as the "value . . . to furnish the denominator of the fraction,"[60] correcting *Keystone*'s misfocus on comparing *after* values to *before* values, a ratio that reveals nothing about the effect of regulatory change on economic viability of the investment. Only by comparing returns *before* and *after* to the investment basis in the property can courts determine whether a reasonable return is possible and evaluate frustration of the DIBE prong of the *Penn Central* test with standard financial methods and performance benchmarks, e.g., net present value of cash flows and internal rate of return.[61]

In *Florida Rock V*, then-Chief Judge Loren Smith wrote the opinion for the court, finding "that [the] plaintiff could have recovered barely half of its inflation adjusted invest-

49. Nollan v. California Coastal Comm'n, 483 U.S. 825, 17 ELR 20918 (1987).
50. Dolan v. City of Tigard, 512 U.S. 374, 24 ELR 21083 (1994).
51. Whitney Benefits, Inc. v. United States, 926 F.2d 1169, 21 ELR 20806 (Fed. Cir.1991). This was a coal case. Plaintiff purchased the property before the 1977 passage of the Surface Mining Control and Reclamation Act, which prohibited mining the coal. Claimants demonstrated a competent mining plan, market demand, and reasonable quantitative investor expectations. The United States finally paid $60 million in damages in 1995, plus interest.
52. *Lucas*, 505 U.S. at 1017, n.7.
53. *See* Michael Berger, *Environmental Protection? It Depends on Who Is Paying*, L.A. Daily J., Aug. 11, 1993.
54. Florida Rock Indus., Inc. v. United States, 45 Fed. Cl. 21 (1999). Florida Rock filed suit after the 1980 denial of a permit by the U.S. Army Corps of Engineers (the Corps) to mine 98 acres of a 1,560-acre parcel of aggregate limestone purchased in 1972 before federal law imposed a regulatory prohibition.
55. *Id.* at 23-24, citing *Penn Cent.*, 438 U.S. at 124.
56. *Id.* at 36 ("[B]efore the Army Corps of Engineers denied Florida Rock's section 404 permit, plaintiff's land in south Florida was worth $10,500 per acre. After permit denial the same property was worth only $2,822 per acre. For the 98 acres, this amount is a 73.1% diminution in value.").
57. *Keystone Bituminous*, 480 U.S. at 496 (invoking the value taken compared to value remaining).
58. *Fla. Rock V*, 45 Fed. Cl. at 37 (emphasis added).
59. *Id.* at 38. See particularly note 12 dealing with plaintiff economist's estimate of economic basis in the property.
60. *Keystone Bituminous*, 480 U.S. at 497.
61. *See* Van Horne, Financial Management and Policy ch. 20 (12th ed. 2004); Appraisal Institute, The Appraisal of Real Estate ch. 20 (12th ed. 2001); Shannon Pratt et al., Valuing a Business ch. 9 (4th ed. 2000). These and dozens of other similar texts define and illustrate financial valuation methods. Like legal precedent, *Daubert* demands that expert testimony in cases involving income losses must follow theory and practice established in the literature. Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 25 ELR 20856 (9th Cir. 1995). Should we expect less of the judiciary?

ment in the subject property through the only remaining means, resale as a speculative investment."[62] *Florida Rock V* invoked language from *Penn Central* to emphasize

> the importance of obtaining a "reasonable return" on the property owner's investment in determining the presence of a taking. . . . "More importantly, on this record, we must regard the New York City law as permitting Penn Central not only to profit from the Terminal but also to obtain a 'reasonable return' on its investment."[63]

Judge Smith's calculation in *Florida Rock V* does not include consideration of a reasonable return on the investment; it was a moot point because the *after* value did not even pay back the inflation-adjusted out-of-pocket investment costs.

B. *Calculation of the Taking Fraction With the Correct Denominator*

This section reviews evidentiary calculations of *Penn Central*'s Taking Fraction with reference to standard financial practice.

1. Analytic Revisit of *Florida Rock V*

The reader should note that the *Florida Rock V* decision made use of the two estimates of value of the property, *before* and *after*, merely to ascertain that the property was devalued 73.1%. Each of these is a numerator value; neither is a denominator value, contrary to cases that follow *Keystone*'s mistaken denominator. The court was certain that:

> In determining the severity of the economic impact of permit denial, [it] must also take into account whether Florida Rock was able to recoup its investment. . . . [Plaintiff's economist] evaluated Florida Rock's economic basis in the property as of October 2, 1980, the date of the denial of permit. . . . He concluded that plaintiff's economic basis in the 98 acres at issue was $597,000 as of that date, or $6,000 per acre. He arrived at this figure by combining actual expenditures for purchase price, acquisition interest, and property taxes adjusted for inflation using the consumer price index.[64]

In short, the decision was definitive that the plaintiff's investment in the mining property was the denominator—the measure of the whole property interest at stake—and asked whether denial of the permit extinguished profitable use of the property. The court's adopted *afte*r value returned only $2,822 per acre, less than one-half the owner's investment; DIBE were frustrated.[65]

Judge Smith recognized in *Florida Rock V* that diminution in value of the relevant property is "not dispositive" of the magnitude of the economic impact; i.e., diminution alone is not enough to reveal whether economic viability has been destroyed.[66] The decision was a direct response to the Federal Circuit: "In determining the severity of the economic impact of permit denial, the court must . . . take into account whether Florida Rock was able to recoup its investment subject to the regulation."[67] The *Florida Rock V* approach conforms the evaluation of DIBE to standard financial performance evaluations with measurable criteria and standard valuation benchmarks. Investment basis in the property at the Federal Circuit as the denominator was brought up in *Florida Rock II* as long ago as 1986.

2. Numerator and Denominator of the Taking fraction to Examine Economic Viability

Florida Rock V determined that the plaintiff's property was no longer an economically viable investment. The estimated sale value of the limestone mining property after denial of the permit recouped barely one-half of the plaintiff's investment.[68] Economically viable use is not an elusive term for financial analysts to measure. It stems from expected returns sufficient to induce an investment. John Maynard Keynes, arguably the godfather of modern economics, defined investment as the right to obtain a series of prospective returns during the life of the asset.[69] Keynes emphasized the expected profitability of investments as the key motivating determinant for investment. Standard finance practice defines economic viability as a return on investment greater than the investor's opportunity cost of the next best alternative. Opportunity cost is typically referred to as the hurdle rate of return; investors require

62. *Florida Rock V*, 45 Fed. Cl. at 41.
63. *Id.* at 39, citing *Penn Central* at 149 (Rehnquist, J., dissenting).
64. *Id.* at 38.
65. *Florida Rock Industries v. United States* entered the court system over 30 years ago over denial of a permit by the Corps to mine 98 acres of a 1,560-acre parcel of aggregate limestone purchased in 1972, before the regulatory prohibition subsequently imposed by federal law. 8 Cl. Ct. 160, 15 ELR 20626 (Cl. Ct. 1985). The Court of Claims found in favor of the plaintiff. On March 28, 2000, the Court of Federal Claims entered final judgment on the partial taking of the 98-acre parcel for $752,444, plus interest from October 2, 1980, plus attorney and expert costs of $1,320,377, and urged the parties to negotiate an award related to the remaining 1,462 acres. 2000 WL 331830 (Fed. Cl. 2000). The appeal of the 1999 and 2000 decisions was dismissed by the Federal Circuit, at the request of the parties upon their reaching a settlement, Sept. 12, 2001. 2001 WL 1173172. The federal government finally paid Florida Rock $21 million in the fall of 2001 to settle the pending case and dispose of the claim with respect to the remaining 1,462 acres.
66. *Id.* at 41.
67. *Id.* at 38. *See Florida Rock II*, 791 F.2d 893, 905, 16 ELR 20671 (Fed. Cir. 1986).

> On remand, the court should consider . . . the relationship of the owner's basis or investment, and the fair market value before the alleged taking, to the fair market value after the alleged taking. In determining the severity of economic impact, the owner's opportunity to recoup its investment or better, subject to the regulation, cannot be ignored.

68. *Id.* at 49 ("In sum, the court finds that Florida Rock's reasonable investment-backed expectations were frustrated; Florida Rock had no reason when it purchased its property to expect that its rights to mine or develop the land were open to question.").
69. John Maynard Keynes, General Theory of Employment, Interest, and Money 135, 225 (Harcourt, Brace & World 1965). *See also* Appraisal Institute, The Appraisal of Real Estate 471 (12th ed. 2001) ("Income-producing real estate is typically purchased as an investment and from an investor's point of view earning power is the critical element affecting property value.").

that the investment earn at least the hurdle rate of return, or their capital will move elsewhere.

Change in economic viability is measured by comparing the return *of* and *on* investment *with and without* the regulatory imposition.

- If the net income *without* regulatory change, discounted with the owner's opportunity cost of capital (hurdle rate), exceeds the investment, the project makes economic sense.
- If the net income *with* regulatory change, discounted with the owner's opportunity cost of capital (hurdle rate), no longer exceeds the investment, economic viability has been extinguished and investment expectations have been frustrated.

One standard financial approach to evaluate change in investment viability of an income producing property is to calculate and compare the present value (PV) of the net incomes for the *with* and *without* scenarios to PV of investments. The ratio of PV (net revenues/investments) is a standard financial decision tool called the profitability index.[70] To clarify the terms of the ratio for each scenario:

- Numerators for *with* and *without* scenarios house *with* and *without* net operating revenues provided by the property's income-producing activities.
- Denominator *with and without* houses investment in the property. Investment is equivalent to the plaintiff's economic basis in the property, plaintiff's equity at risk. The ratio of present value of net revenues to investments in the property measures the taking fraction.
- Returns *with* and *without* go to numerator; investments go to denominator.

This test represents a rigorous tool to evaluate investment-backed expectations by revealing whether returns are sufficient to recoup investment and earn an economically viable return on the investment. Care must be taken to assure that the ratio measures investments and returns for the property as a whole.

The profitability index is a financial tool exactly akin to the Taking Fraction; it is akin to the ratio of values to investment adopted in *Florida Rock V.*

- If the ratio of present value of net returns from the projection of revenues exceeds investment—if the present value of ratio of returns/investments >1, this is a profitable investment.
- If the ratio of returns to investments were lowered but still >1, this is a reduction in profit that does not extinguish economic viable use of the property.
- If the ratio of returns to investments becomes <1, the investment is no longer economically viable: DIBE are frustrated.
- If the ratio of returns to investments is negative (<0), losses exceed the investment and >100% of investment value has been taken. DIBE are frustrated.

This standard textbook financial method of assigning revenue stream to the numerator and investment amounts to the denominator markedly differs from *Keystone Bituminous*' ad hoc comparison of value taken to value remaining.

C. *Federal Circuit Flip-Flopped in Its Choice of the Denominator Since* Tahoe Sierra[71]

The theoretically preferred way to value income losses during a temporary taking of income-producing property is to calculate the change in profits using a cash-flow model taught in first-year graduate finance courses.[72] Standard practice and a number of Supreme Court decisions[73] point out that tangible asset (real property) values can increase or decrease in value during the temporary taking for a number of reasons unrelated to the lost income at stake. What are lost are the cash flows from the use of the real property during the time period of the taking.

The standard way to evaluate the economic impact of this loss is by comparing it to the owner's investment in the property at the time of the loss—following *Florida Rock V* and the discussion above. The cases discussed in this section did exactly that in their empirical presentation of the facts and *Penn Central* analysis in the Court of Federal Claims. The Federal Circuit adopted different notions of the denominator between *Cienega VIII* and *Cienega X*, misconstruing *Tahoe Sierra*'s measurement of the denominator and creating years of ongoing litigation.

1. *Cienega Gardens VIII* Adopted *Florida Rock V*'s Investment Denominator

The Federal Circuit in its 2003 *Cienega VIII*[74] decision relied on the owners' investment in the property as the denominator and determined that the owners had suffered a temporary taking. Owners of Cienega Gardens were one of dozens of investors in subsidized Department of Housing and Urban Development (HUD) low-income housing

70. James C. Van Horne, Financial Management and Policy 142 (2001). *See generally* ch. 6.

71. The author has discussed the analytic details of cases in this section in three articles: William W. Wade, *Confusion About "Change in Value" and "Return on Equity" Approaches to the* Penn Central *Test in Temporary Takings*, 38 ELR 10486 (July 2008); William W. Wade, *Federal Circuit's Economic Failings Undo the* Penn Central *Test*, 40 ELR 10914 (Sept. 2010); William W. Wade, *Sources of Regulatory Takings Economic Confusion Subsequent to* Penn Central, 41 ELR 10936 (Oct. 2011).

72. Op. cit. n.61.

73. United States v. Pewee Coal, 341 U.S. 114, 119-20 (1951) (Reed, J., concurring); United States v. Commodities Trading Corp, 339 U.S. 121, 123 (1950); Kimball Laundry v. United States, 338 U.S. 1, 7 (1949). The interested reader is referred to Judge Charles F. Lettow's discussion of these cases in *CCA Associates v. United States*, 75 Fed. Cl. 170, 200-04 (2007).

74. Cienega Gardens v. United States (*Cienega VIII*), 331 F.3d 1319, 33 ELR 20221 (Fed. Cir. 2003).

projects in the 1970s, expecting to exit the program and convert their properties to market rental rates at the end of 20 years. In 1987, the U.S. Congress passed the Emergency Low-Income Housing Preservation Act (ELIHPA) to prevent owners of low-income housing projects from converting their properties to market rents as allowed under the owners' original regulatory agreements.[75] The 1990 Low-Income Housing Preservation and Resident Homeownership Act (LIHPRHA) replaced the ELIHPA.[76] The LIHPRHA imposed permanent restrictions on property owners' rights to prepay their mortgages and convert to market rents. With rents restricted under the preservation statutes, owners earned substantially less than they anticipated in their original contract with HUD. This led to the ongoing series of lawsuits by the owners alleging both contract and takings claims.

Cienega VIII established that economic viability must be measured with reference to both recoupment of investment and return on investment in order to evaluate a standard financial performance measure.[77] This established opportunity cost of investment as an attribute of the investment in the property, consistent with economic theory.[78] *Cienega VIII* made clear that profit, meaning recoupment of the investment plus a reasonable return, is a factor to consider in assessing economic impact of a regulation.[79] Investors distinctly expect to make a profit, which every appraisal[80] or economic text makes clear. *Cienega VIII* determined that a taking occurred and awarded damages.[81]

No reasonable investor/owner would tie up her money in the rental apartments if she could not earn at least as much as her next best opportunity. Dozens of investors initiated actions to exit the HUD program for exactly this reason in the 1990s. *Cienega VIII* defines that threshold akin to the way that economists and financial practitioners define it—in terms of the relation between the expected returns from the investment and the opportunity cost of the investment.

The relevant threshold is not a bright line. Rather, different circumstances move the line; empirical details and assumptions must be sorted out on a case-by-case basis, but not in an ad hoc fashion. Courts have confused ad hoc considerations of case facts with economic valuation methods, which are not ad hoc.[82] Following *Daubert*, Rule 702[83] demands that expert testimony be "the product of reliable principles and methods." *Cienega VIII* conformed takings case law to match economic practice: when the return on investment is less than the opportunity cost of the owners' investment, economic viability is frustrated. Damages were awarded.

2. Decisions in the Court of Federal Claims Adopted Correct Denominator Values

Two decisions in the Court of Federal Claims' HUD cases[84] followed the analytic approach settled by the Federal Circuit in *Cienega VIII*.[85] They adopted the owners' equity in the properties at the date of the taking as the denominator of the taking fraction and computed the return on equity *before* and *after* Congress changed the law to prohibit owners from exiting the program and converting their buildings to market rents.

The 2005 Court of Federal Claims decision in *Cienega IX* (for a different group of buildings than those in *Cienega VIII*) concluded that "the return-on-equity approach best measures the impact of [lost income during the taking] on the plaintiffs. Measuring an owner's return on equity better demonstrates the economic impact [of] temporary takings of income-generating property than a measurement of the change in fair market value."[86] The government argued that a before-and-after appraisal of fair market value (FMV) of the real property best measures the loss incurred by the plaintiffs and is the correct approach to evaluate the economic impact prong of the *Penn Central* test. Thus, the government argued that the denominator should be the FMV of the building; the taking fraction should compare the FMV of the building in its regulated state to the unregulated value. As demonstrated with the data from *Florida Rock* above, these two values are numerator values.

75. Emergency Low-Income Housing Preservation Act of 1987, Pub. L. No. 100-242.
76. Low-Income Housing Preservation and Resident Homeownership Act of 1990, Pub. L. No. 101-625. Any of the cited HUD cases provide the legislative history not repeated here. The two laws are sometimes referred to as Preservation Statutes.
77. *Id.* at 1333.

> The . . . Plaintiffs' actual equity in their properties . . . was calculated by the plaintiffs' expert as $17,452,045. The . . . Plaintiffs were . . . limited to an annual return of approximately 0.3% on their real equity in the properties. By comparing this rate of return to low-risk Fannie Mae bonds, which . . . would have generated an 8.5% rate of return, we can make a rough estimate of . . . Plaintiffs percentage loss of return.

78. *Id.* Economists and financial practitioners speak of the opportunity cost of capital, meaning the return from the next best opportunity foreclosed by the investor's decision. Cost of capital is the required return by investors; it is the basis for the discount rate, and reflects the risk of the cash flows and underlying financial market conditions, which vary through time. In *Cienega VIII*, plaintiffs' expert actually testified to 11% as the owners' lost opportunity cost of converting to market rentals; Circuit Judge Paul Redmond Michel cut the benchmark to 8.5% to be conservative.
79. *Cienega Gardens*, 331 F.3d at 1333.

> This number reflects the restrictions on profits from rentals imposed on the properties under paragraph 6(e) of the Regulatory Agreements. . . . In view of these findings, we conclude that it would be only normal business judgment under the circumstances for the . . . Plaintiffs to plan from the start to terminate their Regulatory Agreements as soon as possible to take advantage of more profitable opportunities.

80. See, for example, any HUD appraisals in the *Cienega* line; it will contain language akin to the rate of return required to attract investment capital to a project with these additional risks should be considered to be entrepreneur's incentive or profit.
81. *Cienega Gardens*, 331 F.3d at 1333.
82. *Penn Central*, 438 U.S. at 124 ("In engaging in these essentially ad hoc, factual inquiries, the Court's decisions have identified several factors that have particular significance.").
83. Federal Rules of Evidence, Pub. L. No. 93-595, §1, Jan. 2, 1975, 88 Stat. 1937; Apr. 17, 2000, eff. Dec. 1, 2000; Apr. 26, 2011, eff. Dec. 1, 2011.
84. Cienega Gardens v. United States *(Cienega IX)*, 67 Fed. Cl. 434 (2005); CCA Assocs. v. United States, 75 Fed. Cl. 170 (2007).
85. *Cienega VIII*, 331 F.3d at 1333.
86. *Cienega IX*, 67 Fed. Cl. at 475.

Comparing two numerator values produces a percent diminution—a calculation that reveals only that one number is larger. Hundreds of takings cases have applied subjective qualitative judgments, mostly unique to each case, to decide whether the smaller number is diminished sufficiently to justify compensation, balancing everything else somehow. It should be clear that standard financial methods dictate comparison of the numerator values to owners' equity to determine whether the return *after* exceeds the relevant opportunity cost of investment—reducing ad hoc discussion of how much is enough.

Judge Charles F. Lettow rejected the government's denominator argument; the 2005 decision in *Cienega IX* concluded that "the return-on-equity approach best measures the impact of [lost income during the taking] on the plaintiffs. Measuring an owner's return on equity better demonstrates the economic impact [of] temporary takings of income-generating property than a measurement of the change in fair market value."[87] If the return after imposition does not exceed the opportunity cost, the economic impact is sufficient to frustrate DIBE within the *Penn Central* test.[88]

CCA Assocs. v. United States, subsequently decided January 31, 2007, in the Court of Federal Claims, reiterated the appropriateness of the owners' equity in the building as the denominator to benchmark the return on equity approach adopted in *Cienega VIII*:

> [Return on Equity] best measures the impact . . . on the owners' . . . properties because the alleged taking involves lost streams of income at an operating property, not the physical transfer of a piece of undeveloped property to the government and subsequent return of that property to the owner.[89]

Plaintiff expert

> calculated the diminution in return on equity to CCA by dividing the maximum HUD-allowed annual dividend, $12,952, by the aggregate equity in the property at the time of prepayment, $811,700. Under this measure, CCA received a 1.6% return on its equity. Comparing this 1.6% return to the conservative 8.5% return on 15-year mortgage-backed securities, the comparative benchmark used in *Cienega VIII*, yields an economic impact of 81.25%.[90]

The 81.25% diminution calculation is redundant. Theoretically, the *economic decision rule* is binary: either the project return exceeds the external benchmark for lost opportunity—8.5% assumed in these cases—or it does not.[91] Returns from the investment must exceed the hurdle rate or the investment is not economically viable. The percent diminution of return, 81.25%, cited by Judge Lettow merely followed the example of *Cienega VIII*.[92] The calculated rate of return by CCA's expert did not exceed the hurdle rate; the plaintiff's investment was rendered uneconomic by the five years of lost income.

Judge Lettow concluded that a taking occurred in the *CCA* case based on five years of lost income, citing "the owner's opportunity to recoup its investment or better, subject to the regulation, cannot be ignored" from *Florida Rock* and "a claimant's ability to earn a reasonable return on equity under a given regulatory regime in comparison to the return on equity that would be received but for the alleged taking from *Penn Central*."[93]

The government appealed, arguing that the appraised value of the building declined only 18.1%, too little to justify a taking and appealed.[94] Part of its extensive brief invoked *Tahoe-Sierra*'s parcel as a whole to argue that "[t]he trial court erred when it calculated the alleged economic impact of CCA's takings claim using a return on equity approach, rather than a change in value approach."[95]

This was no error. The 18.1% comparison of two numerator values is, however, an economic error, guided by *Cienega X*'s confusion about the denominator. CCA's appropriate denominator was its equity at the date of taking. This value is the measure of the parcel as a whole, reflecting as it does the owners' money at risk.

3. Denominator Confusion in *Cienega X* Ignored Textbook Economics

Before the Federal Circuit issued its *CCA* decision,[96] the Federal Circuit's game-changing *Cienega X* opinion[97] altered the denominator of the *Penn Central* analysis and appropriate evaluation of the economic impact. In its September 25, 2007, decision, the Federal Circuit adopted the government's argument that the Court of Federal Claims erred in *Cienega IX* by not considering the impact of the regulatory restriction on the property as a whole. The decision vacated and remanded *Cienega IX* for a new *Penn Central* analysis.[98]

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87. *Id.*
88. *Penn Central*, 430 U.S. at 124.
89. *CCA Assocs.*, 75 Fed. Cl. at 195-97 (internal citations and quotation marks omitted).
90. *Id.* at 198 (internal citations and quotation marks omitted). The calculation was repeated for each of the five years to show that during the entire period of the taking returns were much lower than owner's hurdle rate.
91. Some calculable allowance for uncertain measurement of inputs and assumptions should always be considered.
92. *Cienega Gardens*, 331 F.3d at 1343 n.39. Circuit Court Judge Michel undertook the calculation in *Cienega VIII*, knowing that it was redundant.
    > We do this [percent diminution] calculation only to have a percentage loss to compare with other takings cases in which a percentage loss was described. A 0.3 percent rate of return may signify a "serious financial loss" with no need to resort to further calculation, but as all of the precedent cited to us involves percentages showing loss, we think it useful to make the further calculation.
93. *Id.* at 195, citing *Florida Rock*, 791 F.2d at 905; *Penn Central*, 438 U.S. at 129 ("capable of earning a reasonable return").
94. CCA Assocs v. United States, Brief for Defendant-Applellant, the United States, Court of Appeals for the Federal Circuit, 2007-5094, Aug. 17, 2007.
95. *Id.* at 44-45 ("The Court's return on equity approach is flawed because it disregards the well-established principle that the analysis of economic impact must consider the property as a whole.").
96. CCA Associates v. United States, 284 Fed. Appx. 810, 811 (Fed. Cir. 2008).
97. Cienega Gardens v. United States (*Cienega X*), 503 F.3d 1266 (Fed. Cir. 2007), *pet. cert. filed* 76 U.S.L.W. 3471 (U.S. Feb. 22, 2008) (*cert. denied*).
98. The interested reader is again referred to articles cited *supra* note 71 for discussion of the *Penn Central* economic prongs of the cases. Here, I only discuss denominator deficiencies because these are the root errors in *Cienega X* and its progeny, *CCA Associates*.

Cienega X invoked *Tahoe-Sierra*'s parcel as a temporal whole to redefine the denominator and reversed the carefully developed analytic approach to the *Penn Central* test laid out in *Cienega VIII, Cienega IX*, and *CCA Associates*. The decision then addressed the question of whether valuation of the lost income from use of the plaintiff's property or valuation of the change in real property value measured *before* and *after* the government imposition is the more appropriate measure of the *Penn Central* economic impact prongs. The panel ruled that the economic impact of the loss of income had to be evaluated in context with the value of the business as a whole "just as it is in the context of a permanent regulatory taking."[99] The court proposed two possible ways "to compare the value of the restriction to the value of the property as a whole."[100]

> First, a comparison could be made between the market value of the property with and without the restrictions on the date that the restriction began (the change in value approach). The other approach is to compare the lost net income due to the restriction (discounted to present value at the date the restriction was imposed) with the *total net income without the restriction over the entire useful life of the property* (again discounted to present value).[101]

Before discussing specific economic failings of each of the two denominators suggested in *Cienega X*, harken back to *Penn Central*. The original *Penn Central* language intended to measure the severity of economic impact on the claimant by the interference with DIBE—which is exactly what *Cienega VIII* did. Although no quantitative analysis within *Penn Central* establishes hard-edged rules to evaluate its two economic prongs, that decision recurrently invokes the concept of a "reasonable return" as the focus of the analysis. The term "reasonable return" appears 19 times in the decision, dissent, and within footnotes. Annual reports of publically owned companies always report the firms' return on equity so that investors can judge the performance of their investments. Conceptually, reasonable returns are no mystery.

a. Change in Real Property Value Fails the Measurement and Denominator Test

To properly measure the parcel as a whole, the *Cienega X* panel suggested first that "a comparison could be made between the market value of the property with and without the restrictions on the date that the restriction began (the change in value approach)."[102] As shown above, this approach suffers from aiming at the wrong stick in the owner's bundle of property rights, the real estate, rather than the property right at issue: lost earnings from use of the property.

Appraising real estate values is too blunt a tool to measure income losses as recognized by the Supreme Court.[103] Real property values can be affected by political and market forces unrelated to the lost income at issue, which is precisely why the *change in value* approach is the least reliable measurement.[104] Standard economic methods exist to measure correctly and evaluate lost earnings in business and legal settings.

Most importantly, two estimates of the building value provide two estimates of numerator values, the comparison of which yields no financial decision benchmark. The proper denominator is the owner's equity at the date of taking.[105] The taking fraction evaluation entails comparing the *before* and *after* building value to the owner's equity to determine if the values recoup the owner's investment and provide a reasonable rate of return, measured by the appropriate opportunity cost at the time of taking.[106] To borrow a phrase from the law, this is black-letter economics.

The government testimony in *CCA* compared the sale value of the property with and without the five-year delay and determined the 18.1% reduction of the building value.[107] Nowhere does the decision answer the question: did the delayed value recoup owners' equity and return a reasonable return? Building values are not conceptually correct as the denominator. In fact, they reflect a mix of debt and equity, typically 75:25% in commercial property investments.

b. Measuring Two Income Streams Eliminates Temporary Takings and Fails the Denominator Test

The second suggested method, "compare the lost net income due to the restriction (discounted to present value at the date the restriction was imposed) with the *total net income without the restriction over the entire useful life of the property* (again discounted to present value)" has a legal flaw. The Federal Circuit decided and the Court of Federal Claims has consistently restricted measurement of economic data governing the *Penn Central* test and damages to the period of the temporary takings.[108] Measurement beyond the end of the taking conflicts with the precedent—a problem for lawyers to sort out.

This method would require experts to evaluate the economic impact of a temporary loss of income during the taking period with data beyond the end of the taking to prove that the loss *during* the temporary taking period eviscer-

99. *Cienega X*, 503 F.3d at 1281.
100. *Id.* at 1282.
101. *Id.* (emphasis added to call attention to the *entire useful life* phrase).
102. *Cienega X*, at 1282.
103. Op. cit. n.73.
104. Numerous other problems described in the appraisal and finance literature support this claim. Discussion is beyond the scope of this Article.
105. This number is provided in the HUD Form 9607 in the HUD property prepayment cases in the *Cienega* and *CCA* cases.
106. See citations *supra* note 61 and accompanying text.
107. *CCA Associates*, 75 Fed. Cl. at 195.
108. Wyatt v. United States, 271 F.3d 1090, 1097 n.6, 32 ELR 20345 (Fed. Cir. 2001) ("The essential element of a temporary taking is a finite start and end to the taking."). *See also Cienega IX*, 67 Fed. Cl. at 483 (citing *Wyatt* (the "'essential element' of a temporary taking is 'a finite start and end to the taking'").

ates the economic prospects of the plaintiff for all time to come. The *Wyatt*[109] decision would preclude the valuation of the property as the net present value of profits because this method must consider the entire life of the investment. *Cienega X* would eliminate thought-to-be black-letter law that the effects of temporary takings are measured between a "start" date and an "end" date. If not, a temporary taking of income must be shown to be equivalent to a permanent taking to justify compensation.

More fundamental to the overlooked bedrock economic principle at issue is that comparing two income streams to each other doesn't prove anything except one is smaller than the other, a point made several times in this Article. It should be clear that each has to be compared to the correct denominator value, the owner's investment in the property, to evaluate whether the government imposition frustrates DIBE. *Cienega X*'s conclusion that the return-on-equity analysis fails to consider the *lifetime value* of the real properties misconstrues the lifetime earnings of the property as the denominator, a financially fatal error.[110]

V. *Tahoe Sierra* Is Miscast as Precedent for the Denominator in Temporary Takings

This economist wonders why the residential fee simple *Tahoe-Sierra* decision became a precedent for the temporary taking of income in cases involving the lost use of commercial property. Keep in mind the salient factual economic differences between *Tahoe Sierra* and *Cienega Gardens* plaintiffs:

- *Tahoe Sierra* was about a 32-month moratorium on potential development of residential housing in the woods of Lake Tahoe. Current income was not at issue. The prevailing argument concluded that the value of the land bounced-back at the end of the moratorium as if landowners had lost nothing. Value therefore returned in time; but, of course, this ignored the lost time value. The Court denied the taking under a *Lucas* claim and decided that the facts of the case should be evaluated in a *Penn Central* framework.

- *Cienega Gardens* and *CCA Associates* had actual and substantial rental income losses during the taking period. Land was not taken nor were the apartment houses stopped from renting. They simply could not raise rents to earn a reasonable or economically viable rate of return during the period of taking. Income was taken; real property was not at issue. The fee simple property right was not at issue in these cases.

The claimed recovery of value of the tangible assets of *Tahoe-Sierra*'s plaintiffs' undeveloped lots is an irrelevant comparison to a business' ability to resume operations after the end of the regulatory prohibition. Income lost in time is not restored as if by magic. The point missed in *Cienega X*, which is paramount, is that time value of money differentiates temporal segmentation of the parcel as a whole per *Tahoe-Sierra* from physical segmentation.

Land parcels might be segmented horizontally into the left or right, north or south acreage; or vertically into the air rights above, or mining rights below.[111] Temporary taking of cash flows removes the near-term returns from the commercial activity and restores the cash flows at the end of the useful life of the project, if at all. These dollars are not fungible. *Tahoe-Sierra*'s temporal segmentation fails to account for time value of money during the temporal segment taken. Returning the use of the property after some taking period does not return the income flow that was lost in time. Remember, for example, that the time value of *Tahoe-Sierra* petitioners' land was diminished 49% in the example after only 32 months.

This Article has shown that comparing value taken to value remaining has no determinative decision rule based on standard economic principles and provides little competent guidance to case decisions beyond screening for serious economic diminution. The thousands of words in briefs, decisions, and journals debating "how much is enough" should be sufficient proof that *Keystone Bituminous* provides poor empirical guidance to the appropriate denominator and the *Penn Central* test. *Cienega X* fell into this trap when it proposed either property value or earnings over the life of the property for the denominator.

The owners' investment in the property is the appropriate denominator when the issue is time-delayed or lost income. The *Armstrong*[112] "fairness and justice" principle requires the judiciary to be aware of economic principles as well as legal precedent to implement the rule. While the Court has "eschewed any 'set formula' for determining how far is too far," jurists should not rely on non-standard economic methods and decision criteria any more than they can ignore legal precedent.[113] Rule 702 demands otherwise. Future courts must discern the difference between the economic analyses of cases with diminution in value of tangible assets from cases with lost income due to interrupted business operations.

Part of the confusion over when to rely on change in property value or change in income from use of the property stems from failure of the courts to discriminate between the property interest taken by the regulation at issue—the tangible assets or the intangible assets. In temporary takings, the use of the property, not the tangible assets, is the property right at stake. Confusion between attributes of the tangible real property and the intangible use of the property has led government representations

109. *Id.*
110. *Cienega X*, 503 F.3d at 1280-82.

111. For more discussion on physical relevant parcels, see n.9.
112. Armstrong v. United States, 364 U.S. 40, 49 (1960). The Fifth Amendment Takings Clause "guarantees that private property shall not be taken for a public use without just compensation . . . 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."
113. *Lucas*, 505 U.S. at 1015 (1992) ("In 70-odd years of succeeding 'regulatory takings' jurisprudence, we have generally eschewed any 'set formula' for determining how far is too far. . . .").

away from standard valuation estimates of lost income. Lost use of property is measured by lost earnings, not a change in real property value. *Florida Rock V* and *Cienega VIII* got it right when each examined the economic prongs of the *Penn Central* test and provided quantitative answers to two straightforward questions:

- Has the value of the property been significantly diminished?
- Do revenues after regulatory change recoup investment in the property and earn a reasonable rate of return?

Answering these questions is straightforward for financial analysts and economists. As I have argued recurrently, a little more math and a lot less discussion would bring a lot more predictability to *Penn Central* regulatory takings cases.