"Economically Impoverished Federal Circuit Decisions dim the *Polestar* of the *Penn Central* Test"

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for ALI-ABA CLE

Eminent Domain and Land Valuation Litigation

Coral Gables Florida
February 17-19, 2011

William W. Wade, Ph. D.

Outline

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1 Introduction & policy conclusions

This paper is constructed as a series of bullet points based on observations and conclusions reached in a dozen articles since 1995 about the economic underpinnings of the Penn Central decision.[1] I key on Federal Claims Court and Federal Circuit Court partial and temporary takings cases to illustrate the use and abuse of standard economic methods to evaluate the Penn Central test. Case facts, which the reader can access within the listed articles or cited decisions, mostly are omitted to emphasize the economic content of the cases.

Policy conclusions reached in this paper are:

- *Penn Central* decision, based partly on the famous-if-dense Michelman article, clearly had sound economic standards in mind to evaluate the merits of the decision to pay compensation; but that Court mis-analyzed the data and reached the wrong economic conclusion.

- Two of *Penn Central*'s "particularly significant factors" hinge on economic theory. Economic calculations must be undertaken and evaluated based on standard financial practice. Knowledge of the law is necessary but not sufficient to conduct the *Penn Central* test; knowledge of standard economic practice is essential. Courts have confused *ad hoc* considerations of case facts with economic valuation methods, which are not *ad hoc.*

- Subsequent decisions confounded three critical elements from the *Penn Central* decision: reasonable economic expectations, the parcel as a whole, and the takings fraction in ways that obfuscate standard economic methods.

- The transubstantiation of reasonably expected returns into reasonable notice of impending regulation change wholly conflicts with the original meaning of DIBE in Penn Central and fatal to application of standard economic methods.

1 See list attached.

- The Supreme Court, while affirming Penn Central as its polestar, has provided no elucidation of the Penn Central test – allowing courts to make up whatever suits them.

- *Florida Rock V* and *Cienega Gardens VIII,* seminal decisions in Federal Claims and Federal Circuit Courts, advanced standard applications of good economics to measure and evaluate the Penn Central test.

- These cases clarified the denominator of the takings fraction as the investment in the property and measured frustrations of distinct investment-backed expectations (DIBE) with the change in economic viability of the investment. Recoupment of and return on investment were established as the basis to evaluate the economic elements of the Penn Central test.

- The government's persistent argument in a series of Federal Claims Court cases that claimant's temporary loss of income arising from the use of their property should be evaluated in context with the real property misconstrued *Tahoe Sierra's* parcel as a temporal whole to confound standard economic methods. Measuring business income losses with property values is bad economics and erroneous.

- *Cienega X's* failure to follow the economic methods vetted in *Cienega VIII* ignores standard economic practice to value business income losses based on the losses and substitutes instead the valuation of the business' real property. This is economic nonsense and side-steps a strong line of Supreme Court precedent that relied on the more appropriate return on equity approach.

- *Cienga X* adopted the government's position that lost income and diminution of return on investment was an insufficient measure of the economic impact to the claimant's parcel as a whole. Recent decisions (*Rose Acre Farms VI* and *CCA Associates*) at the Federal Circuit and Federal Claims Court, progeny of *Cienega X,* reveal disarray in understanding what to measure and how to evaluate the economic prongs of the Penn Central test.

- Confused legal theories cannot be shoehorned into standard economic methods essential to evaluate the *Penn Central* test.

- Until the Supreme Court puts an end to faulty understanding of economics within the Penn Central test (if, indeed, it is to be its polestar) widespread confusion of takings jurisprudence will persist. But who can say that the Supreme Court would understand the economics of the Penn Central test any better than the Federal Circuit?

2 A few thoughts about confusion subsequent to Penn Central.

1 *Penn Central* established several factors that have particular significance[2] 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);
- the character of the government regulation.

2 These factors have become known as the Penn Central test, affirmed repeatedly as the eye of the needle through which millions of words have been jammed with little agreement among courts and jurists as to how to analyze the three-step test. The Supreme Court has provided no elucidation beyond *Palazzolo's*: "Our polestar . . . remains the principles set forth in *Penn Central* itself and our other cases that govern partial regulatory takings."[3] *Lingle* reaffirmed the polestar importance of the Penn Central test in 2005.[4]

3 In 33 years since the 1978 decision, subsequent interpretations of the meaning of Penn Central language have created so much confusion that I would guess that practicing lawyers have no predictable way to evaluate the merits of a takings claim.

4 The economic underpinnings of the Penn Central test may explain why state and federal courts have had such a hard time understanding how to measure and decide whether the economic impact on the claimant has been sufficient to frustrate "distinct investment-backed expectations" (DIBE). While a mystery to counsel and jurists, the calculation and evaluation is straight forward for financial economists with established benchmarks by which to gauge the severity of an economic injury.

5 *Penn Central* itself is not the problem.[5] The *Penn Central* decision includes language that reveals financial and economic meaning for the notions of economic impact and frustration of DIBE: to wit, "the appellants had not shown that they could not earn a reasonable return on their investment in the Terminal

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

3 *Palazzolo v. Rhode Island,* 533 U.S. 606, 633 (2001) (O'Connor, J., concurring)

4 Lingle v. Chevron U.S.A., Inc., 125 S. Ct. 2074, 283 (2005) (unanimous decision). ("The *Penn Central* factors--though each has given rise to vexing subsidiary questions--have served as the principal guidelines for resolving regulatory takings claims that do not fall within the physical takings or *Lucas* rules.")

5 Even Professor John Echeverria agreed that *Penn Central* is here to stay; he believes its three factors need to be re-defined in ways wholly at odds with standard economic practice such that claimants could never, short of a total wipe-out, surmount the Penn Central test. ("Making Sense of Penn Central," 23 JOURNAL OF ENVIRONMENTAL LAW 171, October 2006.

itself; . . . even if the Terminal proper could never operate at a reasonable profit, . . . ;"[6] "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."[7]

6 Given that the Penn Central ceased to exist as a railroad in 1976 and was being operated as Conrail under federal bankruptcy protection, the "reasonable return" conclusion is difficult to understand. The Court's conclusion that Penn Central "not only . . . [profited] from the Terminal but also obtain[ed] a "reasonable return on its investment"[8] was an unrebutted and mistaken assumption by the court. Grand Central Station was eventually restored at public expense by the New York MTA.

7 The *Lucas* decision clarified what investor's expect as investment-backed *profit* expectations.[9] To the economist, DIBE amount to nothing more complicated than prospective returns reasonably expected as an attribute of property investment.

8 Justice Brennan, who penned the *Penn Central* decision,[10] relied on Professor Frank Michelman's 1967 Harvard Law Review article,[11] cited in the opinion,[12] as the basis for the two economic prongs of the *Penn Central* test. Michelman argued that the test for whether compensation should be paid depends not on how much value has been destroyed, but "whether or not the measure in question can easily be seen to have practically deprived the claimant of some distinctly perceived, sharply crystallized, investment-backed expectation."[13] Michelman created the language in an economic context adopted in *Penn Central.*

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6 438 U.S. at 105.

7 *Id.* at 136.

8 *Id.*

9 *Lucas v. South Carolina Coastal Council,* 505 U.S. 1003, (1992).

10 Actually his clerk inserted the DIBE phrase. Gideon Kanner observed, "I suppose we should all be grateful to Justice Brennan's clerk for not inserting Michelman's entire phrase – "distinctly perceived, sharply crystallized, investment-backed expectations" -- into the *Penn Central* opinion. God only knows what Byzantine intellectual horrors we and our clients would have been subjected to if we also had to parse "sharply crystallized" along with the other imprecise terms in that phrase." Gideon Kanner, *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);

11 Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165 (1967).

12 *Penn Cent.*, 438 U.S. at 128.

13 Michelman, *supra* note 11, at 1233.

2.1 The real problems ensued after Penn Central.

9 For no discernable legal or linguistic purpose, Justice Rehnquist changed "distinct" to "reasonable" the year following *Penn Central* in *Kaiser Aetna v. United States.*[14] This change has confounded courts' views of reasonable profit expectations with plaintiffs' reasonable notice of regulatory prohibitions; *e.g., Cienega Gardens v. United States*, ("the plaintiffs could not reasonably have expected the change in regulatory approach.").[15] Conversion of Penn Central's distinct investment-backed expectations to reasonable notice of rules eviscerates the determinative economic content of Penn Central.

10 Penn Central's sensible "parcel as a whole" language has created a quagmire of economic confusion.[16] Measurement of the parcel as a whole is the root source of the confusion post *Tahoe Sierra*[17] about evaluation of the economic benchmarks within the Penn Central test for income producing properties.

11 In the *Keystone Bituminous* decision, Justice Stevens created the notion of a takings fraction to measure and benchmark a takings claim.

> "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, the critical question is determining how to define the unit of property whose value is to furnish the denominator of the fraction."[18]

Subsequent courts have adopted the comparison in the decision as if it reveals some theoretical insights about severity of economic impact – which it does not – thereby creating huge confusion and endless discussion about what percentage loss is enough to justify compensation.

3 Federal Circuit and Court of Federal Claims clarified but ultimately confounded the Penn Central Test.

12 In the absence of guideposts from the Supreme Court to elucidate its polestar to

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14 *Kaiser Aetna v. United States* , 444 U.S. 164, 175 (1979).

15 *Cienega Gardens v. United States* ,503 F.3d 1266, 1289 (Fed. Cir. 2007). (*Cienega X.*)

16 438 U.S. at 130-31. ("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. . . . [T]his Court focuses rather . . . [on] the parcel as a whole.")

17 *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*,535 U.S. 302, 331-332 (2002). ("Hence, a permanent deprivation of the owner's use of the entire area is a taking of the parcel as a whole, whereas a temporary restriction that merely causes a diminution in value is not. 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.")

18 *Keystone Bituminous Coal Assn. v. DeBenedictis* 480 U.S. 470, 497 (1987). (emphasis added).

evaluate a regulatory taking, the Federal Claims Court and the Federal Circuit Court, which frequently deal with the factual inquiries within regulatory takings cases, have advanced the economic predicates for evaluating the *Penn Central* factors.

13 Two cases had seminal influence on analytic understanding of the economic prongs:

- *Florida Rock Industries, Inc. v. United States,*[19] *(Rock V)*
- *Cienega Gardens v. United States,*[20] *(Cienega VIII)*

14 These decisions relied on competent economic testimony in their findings.[21] The expert witnesses relied on standard financial theories, practices, and used established textbook formulas to evaluate interference with distinct investment-backed expectations.

15 *Cienega X*[22] repudiated *Cienega VIII* and ignored *Rock V,* relying on presentations by the government. This decision removed standard economic methods from the evaluation of the two economic prongs of the Penn Central test.

3.1 *Florida Rock V* clarified the evaluation of a partial taking.

16 *Florida Rock V* clarified measurement of and decision benchmarks for the economic elements of the *Penn Central* test. The decision provides 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?[23]

Competent economic testimony showed the answers to be "yes" and "no."

17 *Florida Rock V* established the correct economic basis for the denominator of the Takings Fraction and clarified conditions under which a partial reduction in value

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19 *Fla. Rock Indus., Inc. v. United States*, 45 Fed. Cl. 21 (1999). (Florida Rock was not the first taking decision that adopted competent economic testimony; *e.g.*,see *Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed Cir.1991). This was a coal case. Plaintiff purchased the property before the 1977 passage of the SMCRA, which prohibited mining the coal. Claimants demonstrated a competent mining plan, market demand, and reasonable investor expectations. The United States finally paid $60 million in damages in 1995, plus interest, but not before arguing that cattle grazing was a viable alternative for the investment in the property, which was rebuked by the trial court.)

20 *Cienega Gardens v. United States,* 31 F.3d 1319 (Fed. Cir. 2003).

21 *See e.g., Cienega Gardens*, 331 F.3d at 1340.

22 *Cienega Gardens v. United States,* 503 F.3d 1266 (Fed. Cir. 2007), *pet. cert. filed* 76 U.S.L.W. 3471 (U.S. Feb. 22, 2008) (No. 07-1101) ("*Cienega X"*). denied.

23 *Fla. Rock*, 45 Fed. Cl. at 24. (As the revenues after the change in regulation barely recovered half of the investment, return on investment was not at issue.)

("partial taking" of plaintiff's property) would justify payment of damages.

18 Judge Loren Smith recognized in *Florida Rock V* that change 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.[24] Economic viability has to be measured with reference to returns to investments in order to evaluate standard financial performance measures.

19 *Florida Rock V* established the investment basis in the property as the denominator of the takings fraction and compared returns before and after the change in regulation to that investment basis to determine if any "reasonable return" was possible after the change.[25]

20 This ruling clarified the all important takings fraction to require measurement of the investment in the property as the "value . . . to furnish the denominator of the fraction," correcting *Keystone*'s misfocus on comparing "after" values to "before" values, a ratio that reveals little about the effect of regulatory change on economic viability of the investment.

21 Only by comparing returns before and after to the investment basis in the property can courts evaluate frustration of DIBE with standard financial methods and performance benchmarks—net present value of cash flows or return on investment. The ratio of returns to investments, discounted with the plaintiff's opportunity cost of money, reveals both recoupment of investment and demonstrates economic viability—or lack thereof. This is black-letter economics, a point missed in *Cienega X* and its progeny.

3.2 Cienega VIII applied *Rock V's* logic to temporary takings.

A number of federal takings cases heard in the first decade of this century consider the conceptual measurement of economic impact within the Penn Central test for income producing properties. Two issues were repeatedly argued:

- *Measurement of the denominator of the takings fraction related to parcel as a whole and whether the denominator differs between permanent and temporary takings;*
- *Evaluation of the severity of economic loss based on change in value of the real property using appraisal methods or evaluation of lost use of the property based on the effect of lost income on return on equity.*

22 *Cienega VIII e*xtended *Florida Rock V* by establishing a benchmark rate of return as the threshold of "serious financial loss." *Cienega VIII* transformed economic impact to diminution in value and applied the "diminution in value" prong of the *Penn Central* test as a threshold requirement. Plaintiff must "show 'serious financial

24 *Id.* at 21.

25 *Id.* at 38.

loss' from the regulatory imposition in order to merit compensation."[26] Frustration of economic viability governs "serious financial loss" and the decision to pay compensation.

23 *Cienega VIII* established that economic viability be measured with reference to both recoupment of investment and return on investment in order to evaluate a standard financial performance measure.[27] This established opportunity cost of investment -- the hurdle rate of return -- as an attribute of the investment in the property, consistent with economic theory.

24 Economists 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 is based on the risk of the cash flows and underlying financial market conditions.

25 John Maynard Keynes defined investment (1936) as the right to obtain a series of prospective returns during the life of the asset. Keynes emphasized the expected profitability of investments as the key motivating determinant for investment.[28] The government has persistently failed to recognize that the cash flow from investments in income-producing properties is the essential stick in the bundle of rights.

26 *Cienega VIII* conformed 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. Economic decision rules play an obvious role in determining when a regulation undermines investment-backed expectations sufficiently to award compensation; i.e., when the regulation "goes [so] far" that it crosses a relevant threshold.[29]

- Economic returns benchmarked to owner's equity and the opportunity cost of capital replaces percent diminution in value as the determinative *Penn Central economic* prong.
- If returns after the regulatory proscription on plaintiff's use of the property are less than opportunity cost, economic viability is eliminated.

27 The government argued in this and subsequent lost income cases that the before-and-after appraisal of fair market value (FMV) of real property best measures loss incurred by the plaintiffs and is the correct approach to evaluate the economic impact prong of the *Penn Central* test. Both *Cienega VIII* and the follow-on 2005 decision of the Court of Federal Claims in *Cienega IX* disabused the government 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

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26 *Cienega VIII*, 331 F.3d at 1340.

27 *Id*. at 1333.

28 JOHN MAYNARD KEYNES, GENERAL THEORY OF EMPLOYMENT, INTEREST, AND MONEY 135, 225 (Harcourt, Brace & World eds., 1936).

29 *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

equity better demonstrates the economic impact [of] temporary takings of income-generating property than a measurement of the change in fair market value."[30]

28 *Florida Rock V* and *Cienega VIII* clarified how to apply, measure, and evaluate the economic elements of the *Penn Central* test to determine when a compensable taking has occurred. These cases adopted standard economic methods to determine when the economic impact to a claimant sufficiently erodes DIBE to justify compensation.

3.3 Cienega X is a radical back-step in the understanding of Penn Central's economic prongs for income producing properties.[31]

29 The 2007 *Cienega X* decision held that the Court of Federal Claims in *Cienega IX* erred by not considering the impact of the regulatory restriction on the property as a whole. Instead, "the Court of Federal Claims applied a 'return-on-equity' approach, considering the income from the project for each individual year as a separate property interest."[32]

30 *Cienega X* repudiated the standard approach to measure the economic impact of a regulatory taking for income producing property adopted in Federal Circuit's 2003 *Cienega VIII* decision. The decision questioned 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 taking period is the more appropriate measure of the Penn Central test in light of *Tahoe-Sierra*.

31 *Cienega X* invoked *Tahoe-Sierra's* enlargement of property as a physical whole to encompass temporal segmentation of income,[33] adopting the government's persistent argument that return on equity does not encompass the value of the real estate. The panel decided that "the impact on the value of the property as a whole is an important consideration [in a temporary taking], just as it is in the context of a permanent regulatory taking."[34]

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30 *Cienega Gardens v. United States*, 67 Fed. Cl. 434, 475 (2005) *("Cienega IX")*.

31 The interested reader will discover additional information about *Cienega X* in the author's 2008 article, "Confusion About *Change in Value* and *Return on Equity* Approaches to the Penn Central Test in Temporary Takings, 38 ELR 10486 (July 2008).

32 *Cienega Gardens v. United States,* 503 F.3d 1266 , 1280 (Fed. Cir. 2007), *pet. cert. filed* 76 U.S.L.W. 3471 (U.S. Feb. 22, 2008) (No. 07-1101) ("*Cienega X"*). denied. (citing *Cienega IX*, 67 Fed. Cl. at 475-76). (*"Cienega X")*

33 *Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 327 (2002). "[E]ven though multiple factors are relevant in the analysis of regulatory takings claims, in such cases we must focus on "the parcel as a whole."

34 *Cienega X*, 503 F.3d at 1281.

32 Applying *Tahoe-Sierra* to income producing properties is an error.[35] 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.[36] 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. 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 same asset.

33 The court proposed two possible ways "to compare the value of the restriction to the value of the property as a whole."[37]

> "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)."[38]

34 The *Cienega X* decision cites the *Keystone* decision in search of the all-important denominator of the takings fraction. Reliance on *Keystone's* fateful fraction of "value taken to value remaining" fails to recognize the empirical fact that *Keystone* was about coal in the ground, a tangible asset with no established value in the case, where the loss in *Cienega Gardens* was foregone income from use of the property, and the income was critical to economic viability of the investment.[39]

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35 Reliance on *Tahoe-Sierra* is misplaced if for no other reason than the fact that *Tahoe-Sierra* was a *Lucas* case. *Tahoe-Sierra*, in fact, denied the *Lucas* taking and concluded that the facts of the case would be "best analyzed within the *Penn Central* framework." The decision provided no guidance for undertaking the Penn Central test. (*Tahoe-Sierra* at 321.

36 For more discussion on physical relevant parcels, see John E. Fee, "Unearthing the Denominator in Regulatory Takings Claims," 61 U. Chi. L. R. 1535 (1994) and Steven J. Eagle, "Unresolved Issues in Regulatory Takings and the Protection of Private Property Rights," Section VII, CLE International Conference on "Regulatory Takings: New thoughts on the State of the Law," Tampa, Florida, February 23, 2007.

37 *Id.* at 1282.

38 *Id*. (emphasis added to call attention to the *entire useful life* phrase.)

39 *Keystone* petitioners provided no value associated with the mandated support coal for the mines that initiated the law suit. The owners did not show deprivation of any economically viable use of that coal. No lost earnings were at issue in *Keystone*. The support coal had no demonstrable economic value prior to the regulation; the regulation cannot be said to have deprived the mine owners of any economic value. The decision correctly ruled no taking because the stick at issue had no demonstrated economic value, not because of any reduction

35 The first adopted remedy for purported short-comings of the return on equity approach is labeled the "change in value" approach, which is described as the ratio of the "value of the . . . property encumbered by regulation [to] the value of the same property not so encumbered . . . . Because the change in value approach considers everything that affects the property's value, it provides the most reliable measure of a regulation's impact upon the property [as a whole]."[40]

36 Appraisal approaches may accurately measure a change in market value for real property, but they do not accurately measure economic losses to the owner of income-producing properties. The change in market value approach will produce incorrect estimates of economic damage because the before and after appraisal of market value measures the wrong stick in the bundle of property rights—the tangible asset in lieu of the income stream from the use of the property.

37 Apart from the measurement deficiencies, the fatal flaw with the before and after approach is the problem identified with *Keystone's* takings fraction, corrected by *Florida Rock V*. The value after compared to the value before, or the percent decline of value, yields no financial decision benchmark.

38 Where income losses are at stake, owners' change in income and equity are the relevant concepts to measure and compare. This is black-letter economics. The recovery of value of the tangible assets of *Tahoe-Sierra's* plaintiffs' undeveloped lots is not a competent 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.

39 On to the second approach adopted by the decision: The valuation of the property with a discount cash flow model over the "entire useful life of the project" is even less appropriate than the appraisal method. This 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 eviscerates the economic prospects of the plaintiff for all time to come. This would eliminate thought-to-be black-letter law that the effects of temporary takings are measured between a "start" date and an "end" date.[41] If

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in the taking fraction. No analysis in the case evaluated a takings fraction to determine if it had any determinative merit. The value of the *Cienega IX* stick—lost earnings—was not zero and its importance to the integrity of the entire bundle is paramount. The Keystone mine owners possessed full value for their operations before and after the mal-alleged taking. The petitioner's lawyers brought this takings case with no economic damages, and with only a gobbelty-gook response to the question about the economic effects of the Subsidence 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." *Keystone*, 480 U.S. at 493.

40 Brief for Defendant-Applicant in Chancellor Manor v. United States, Fed. Cir. No. 2006-5052, at 46 (June 2, 2006).

41 The Federal Circuit decided and the Court of Federal Claims cases have consistently restricted measurement of economic data governing the Penn Central test and damages to the period of the temporary takings. *Wyatt v. United States,* 271 F.3d 1090, 1097 n.6 (Fed. Cir.

so, a temporary taking of income must be shown to be equivalent to a permanent taking to justify compensation.

40 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.[42] Common sense and Supreme Court decisions 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.[43] What is lost are the cash flows from the use of the real property during the time period of the taking. Time values of the lost income during the taking are not measured by real property appraisals. Benchmarking the change in income during the taking to 100% of owner's equity in the property is consistent with *Penn Central's* property as a whole.

41 *Cienega X* reverses a line of cases that brought clarity to the *Penn Central* test. Not surprisingly, Circuit Judge Newman, who was on the *Cienega VIII* and *Cienega X* panels, had reasonably harsh words for her colleagues. "This panel has no authority to revoke our prior decision [in *Cienega VIII*]."[44] "[Considering the] creative theories propounded by my colleagues for redetermining whether a taking occurred ignore the law of this case . . . I must, respectfully, dissent."[45]

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.'"

42 *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, ROBERT REILLY, & ROBERT SCHWEIHS, VALUING A BUSINESS, ch. 9 (4th ed. 2000).

43 Two Supreme Court cases confirm what economists and financial analysts consider bedrock: lost earnings are what matter when an income-producing business operation is interrupted. Justice Stanley Foreman Reed contrasted returns with the change in market value in the 1951 *United States v. Pewee Coal* case: "Market value, despite its difficulties, provides a fairly acceptable test for just compensation *when the property is taken absolutely.* But in the temporary taking of operating properties, market value is too uncertain a measure to have any practical significance." 341 U.S. 114 , 119-121 (1951) (Reed, J., concurring). *Kimball Laundry* reached the same conclusion: "[I]f the difference between the market value of the fee on the date of taking and that on the date of return were taken to be the measure, there might frequently be situations in which the owner would receive no compensation whatever because the market value of the property had not decreased during the period of the taker's occupancy." Kimball Laundry v. United States, 338 U. S. 1, 7 (1949).

44 *Cienega X*, 503 F.3d at 1291-1292 (Newman, J., dissenting).

45 *Id* at 1295 (Newman, J., dissenting). (Judge Pauline Newman served as an adjunct professor of law at George Mason at the time, teaching Legal and Economic Theory of Intellectual Property. She received a B.A. from Vassar College in 1947, an M.A. from Columbia University in 1948, a Ph.D. from Yale University in 1952, and an LL.B. from New York University School of Law in 1958. Chances are good that she knows some economics and finance.)

4 Progeny of *Cienega X* -- *Rose Acre Farms* & *CCA Associates* – reveal its confused understanding of Penn Central's economic underpinnings.[46]

Progeny of Cienega X demonstrate that faulty legal theories of economics developed in Cienega X should not displace well-established textbook economic theories for measuring and benchmarking financial losses. Recent Federal Circuit and Federal Claims Court decisions reveal that confused legal theories cannot be shoehorned into standard economic methods essential to evaluate the Penn Central test.

Progeny of Cienega X at issue are:

- *Rose Acre Farms, Inc. v. United States (Rose Acre VI)*[47]
- *CCA Associates v. Unites States (Fed. Cl.)*[48] *(CCA III)*
- *CCA Associates v. United States (Fed. Cir.)*[49] *(CCA II)*

The essential economic fact to understand in the Cienga Gardens, CCA, and Rose Acre Farms cases is that unanticipated regulatory proscriptions interrupted their plans of business operations causing substantial loss of income for a period of two to five years. CCA Associates and Cienega Gardens owned rental properties, which were prohibited from exiting a government low-income housing program and increasing rents to market; Rose Acre Farms suffered a 25-month loss of table egg sales due to government restrictions.

Reliance on change in value of real (or imagined[50]*) property in lieu of loss of income led each of the federal circuit decisions astray.*

4.1 *Rose Acre Farms* confounded numerator and denominator to reach a confused analysis of *Penn Central* economic factors.

42 *Rose Acre Farms* was heard by the Federal Claims and Federal Circuit Courts twice; both times the lower court found a taking and the Federal Circuit reversed. Most recently, the Federal Circuit, following *Cienega X,* overturned because it disagreed with assessing the *severity of the economic impact* by looking at the

46 This section draws on "Federal Circuit's Economic Failings Undo the *Penn Central* Test," 40 Environmental Law Reporter 10914, September 2010 and *Penn Central's* Ad Hocery Yields Inconsistent Takings Decisions, 42 The Urban Lawyer 549, summer 2010. Articles attached.

47 559 F.3d 1260 (Fed. Cir. 2009), *cert. denied*, 130 S. Ct. 1501 (2010).

48 91 Fed. Cl. 580 (2010).

49 284 Fed. Appx. 810, 811 (Fed. Cir. 2008).

50 For *Rose Acre Farms VI*.

percentage decrease in profits; finding that doing so "does not provide a sufficiently accurate view."[51]

43 *Rose Acre Farms VI* revisited the question of whether the economic impact should be calculated by a diminution in value analysis or a diminution in return analysis. Conjoining this question with *Cienega X's* parcel as a temporal whole concept, the government argued in their brief "[t]he exclusive focus upon Rose Acre's lost profitability *during* the temporary period [of the restrictions] is an erroneous assessment of the economic impact of a temporary regulatory restriction upon the property as a whole." . . . The obvious purpose for [the *Tahoe-Sierra*] requirement is to assess the economic impact of the temporary regulatory action in relation to *the entire life of the property*."[52]

44 The *Rose Acre VI* decision emphasizes the need for courts to distinguish the economic differences between real property takings cases and temporary takings of earnings from business operations. The decision applies a uniquely *ad hoc*, confused approach that transubstantiated eggs – a farm product sold for revenues -- into the mistaken denominator parcel. The court evaluated loss of gross revenues as an *ad hoc* but wholly erroneous measure of decline in value of the parcel. Lost income was the property right at stake and diminution in rate of return was the correct economic metric.

45 Equating the sale of eggs with the denominator parcel was the fatal error adopted by the Federal Circuit. Revenues are correctly part of the numerator Government expert measured loss of sales of the eggs as only 10.6% and government counsel convinced the court that claimant's property value was insufficiently reduced to surmount the Penn Central test and justify compensation. Property values were not at stake and no evidence of property values are in the record.

46 The Federal Circuit failed to understand that claimant's profit margin on the sale of eggs was only 2%; therefore, a 10.6% loss of revenues extinguished all profits and rendered a negative rate of return on the three farm properties during the period of the taking.

47 The economic record of *Rose Acre V* and *VI* is hopelessly muddled, particularly in the discussions of elements of the *Penn Central* test.[53] Whether the denominator was the diverted eggs or the three farms—or neither; whether gross revenues or net profits, lost income or lost value, average marginal costs or average total costs governed the numerator apparently eluded the judges, the parties, and even the experts.

48 Following *Florida Rock V*, which was not cited in the trial, the investment basis in the Rose Acre Farms, which was not introduced at trial, was the correct basis for

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51 *Rose Acre VI* 559 F.3d at 1268.

52 Corrected Brief for Defendant-Appellant at 40-41, *Rose Acre Farms v. United States*, 559 F.3d 1260 (Fed. Cir. 2009) (No. 2007-5169). (emphasis added.)

53 *Rose Acre VI*, 559 F.3d at 1282–84.

the denominator. The change in profits due to the loss of revenues from lost sales of the eggs was the correct numerator and the change in returns might have revealed a sufficiently severe economic impact to frustrate DIBE.[54] Had *Florida Rock V* been followed, the outcome might have turned out differently.

4.2 Federal Circuit abruptly remanded *CCA*'s thorough Claims Court analysis of loss of income for reconsideration under *Cienega X*.

49 Citing to *Cienega VIII* and the 1949 and 1951 Supreme Court cases,[55] Judge Lettow concluded in the 2007 CCA decision, "The better measure [for temporary possession of a business enterprise is] the operating losses suffered during the temporary period of government control."[56] The decision found an 81.25% diminution of return on equity over the five-year taking period based on lost rental income.[57]

50 The federal circuit threw out Judge Lettow's careful benchmarking of five years of lost income to CCA's equity in the trial court finding of a taking. The Federal Circuit's four-page decision remanded for "further consideration in accordance with *Cienega X."*[58] Thus, the case came back to Judge Lettow and the economic issues were re-litigated following *Cienega X* in place of *Cienega VIII.*

51 Not surprisingly, CCA Associates' post-trial memorandum put the court on notice that they were playing under protest of the *Cienega X Penn Central* rules.

> CCA acknowledges that this Court generally must apply the *Cienega X* analysis, notwithstanding the fact that this analysis directly conflicts with the Federal Circuit's decision in *Cienega VIII*. However, CCA preserves herein its argument that *Cienega X*'s "lifetime value" approach to measuring economic impact is contrary to United States Supreme Court

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54 *Rose Acre VI*, 559 F.3d at 1274 mentions that Rose Acre owned six other farms, unaffected by the problems at three farms. Data from these other operations are not in the trial record.

55 See fn 42.

56 *CCA Assocs. v. United States,* 75 Fed. Cl. 170, 200 (2007).

57 *Id.* at 199. Along the way, Judge Lettow once again chastised the government for its persistent argument against the return on equity method: "In resisting the return-on-equity approach and favoring the change-in-value method of economic analysis, the government manifestly errs by suggesting that in *Cienega VIII* the Federal Circuit broke new ground in Fifth Amendment Takings Clause jurisprudence. Def.'s Reply at 28 (citing *Cienega VIII* as "the first case to ever reference the 'rate of return' analysis."). The return- on-equity approach was relatively novel at one time-over fifty years ago-but not today." *Id.*

58 *CCA Assocs. v. United States,* 284 Fed. Appx. 810, 811 (Fed. Cir. 2008). "We most recently addressed these issues in *Cienega Gardens v. United States*, 503 F.3d 1266 (Fed. Cir. 2007) ("Cienega X"). That decision, which was issued after the decision of the Court of Federal Claims in this case and the submission of the government's opening brief, addressed arguments that are in many respects identical to those presented here."

> precedents, contrary to Federal Circuit precedents, and contrary to sound policy.[59]

52 Following the Before and After approach of Cienega X, the parties agreed that the building value had been reduced 18% by the five-years of rental income losses. The Claims Court again found for the claimant:

> As a result of the temporary taking, and considering the entire, whole, useful life of [its apartment complex], CCA suffered an 18% economic loss in its total market value. In determining how far is too far, there is "no magic number," and "no set formula." Here, an 18% economic loss concentrated over approximately five years constitutes a "serious financial loss." The duration of the deprivation, five years and ten days, is significant in this regard. . . . The economic loss suffered here, when combined with the character of the government's actions and CCA's reasonable investment-backed expectations, which both factor heavily in CCA's favor, is sufficient to establish that CCA suffered a temporary regulatory taking.[60]

53 One wonders how the Federal Circuit will deal with the 18% diminution in property value as the basis for a taking decision following the government's appeal filed July 20, 2010. This value, in fact, does not measure the all-important *Penn Central* test prong: frustration of distinct investment-backed expectation. The value of the real property is composed of both equity and debt. The stipulated 18% change in value does not reveal the effect of the lost income benchmarked to equity alone.

54 The CCA decision's 18% diminution in building market value had to ignore the point of *Florida Rock V's* seminal decision that diminution in value of the property is not dispositive of the severity of the economic impact; diminution alone is not sufficient to reveal whether economic viability has been destroyed.

55 The guiding *Cienega X* decision fails to grasp what the Supreme Court had known for decades; i.e., that appraisal approaches may measure a change in market value for real property--tangible assets--but they cannot accurately measure income losses for income-producing properties.

56 The government in its appeal brief continues to argue change in value citing the usual list of cases where percent diminution much greater than 18 percent were not ruled a taking, including on the list irrelevant cases that were decided on nuisance or harm prevented.

> Accepting the trial court's assertion that "an 18% economic loss concentrated over approximately five years constitutes a 'serious financial

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59 *CCA Assocs v. United States*, 91 Fed. Cl. 580 (2010). "Plaintiff CCA Associates' Post-Trial Memorandum," August 26, 2009, n.15 at 23. (The lengthy footnote is referred to interested readers.)

60 *CCA III,* 91 Fed. Cl. 580, 618-19 (2010) (internal citations omitted).

loss would run counter to decades of regulatory takings jurisprudence and dramatically lower the bar for takings claimants.[61]

57 The brief never mentions lost income during the five-year taking period, dealing only with Fair Market Values of the real property. The real property, of course, was not taken and not at issue. Neither does the brief identify the all-critical denominator value, against which to measure the severity of economic impact. The brief does not take on the two economic prongs of the Penn Central test with competent measures of the lost income or the investment basis that should serve as the denominator of takings fraction.

58 Until such time that the Federal Circuit or the Supreme Court corrects the specious analysis of severity of economic impact adopted in *Cienega X* and made by the government in this case and *Rose Acre Farms,* opposing counsel will go on arguing what percentage diminution in property value is sufficient to justify compensation – a measure shown to be not dispositive in *Florida Rock V* and textbook economics.

59 Faulty understanding of standard economic and financial analysis within regulatory takings cases continues to set this jurisprudence apart from standard tort cases, where state of the art economic methods typically are applied within both liability and damages phases of the trial. Takings jurisprudence is unlikely to have any predictability until the economic underpinning of the Penn Central test are conformed to standard economic approaches. Measuring business income losses with property values is flat wrong

61 *CCA Assocs v United States,* U S Court of Appeals for the Federal Circuit, Case #2010-5100, -5101, "Brief of Defendant-Appellant, The United States," pages 19-20. July 19, 2010. It is worth noting that a small cadre of DOJ lawyers have honed their change in value arguments over the decade since *Cienega VIII*. Opposing counsel in the various cases take up these issues anew.

Economic Advances Governing Takings Evaluations and Damages			
Date	**Case**	**Legal Decision**	**Economic Implication**
Supreme Court Takings Decisions Advancing Economic Inquiry			
1949	*Kimball Laundry*	Compensate value of lost trade routes, not simply fair rental value.	Estimate intangible lost use values of ongoing concern as part of damages.
1978	*Penn Central*	Set 3-prong test including economic impacts and frustration of DIBE applied to property as a whole.	Economic impacts and frustration of DIBE measurable with standard financial tools to establish loss.
1980	*Agins*	Taking implies denial of "economically viable use."	Returns sufficient to recoup investment and provide reasonable return.
Fed. Cl. and Fed. Cir. Court Decisions Advancing Economic Inquiry			
1999	*Florida Rock V*	Denominator = inflation adjusted Investment basis in the property and not before value; numerator = loss of net income.	Established evaluation of recoupment of investment as the benchmark of the taking.
2003	*Cienega VIII*	Serious economic loss = rate of return lower than external opportunity benchmark return.	Established evaluation of return on investment w/r to opportunity cost of capital; i.e., reasonable expectations imply return of investment and reasonable profit.
2004	*Independence Park*	Damages = lost profits and not fair rental value; damages measured at end date of temporary taking.	Set net present value of lost profits as value of lost use. End point benchmark reduces chance of bias against plaintiff.
2004	*Tulare Lake*	Interest on damages = prudent investor's foregone opportunity.	Eliminates faulty legal theory that low risk or risk free interest rates apply to damages. Interest on damages due at owner's lost alternative rate.
2005	*Cienega Gardens IX/ Chancellor Manor*	Serious economic impact = rate of return lower than external opportunity benchmark return; Damages = lost profits and not change in fair market value.	Followed *Cienega VIII* and *Independence Park* to confirm appropriate concepts to measure.
2007	*Cienega X*	Transformed evaluation of serious economic impact of lost income into change in value of real property.	Requires either Before and After valuation of the real property or evaluation of the temporary lost income with income over the "entire useful life of the property."
2009	*Rose Acre Farms VI*	Overturned Cl. Ct. because "severity of economic impact" is not correctly measured with percentage decrease in profits.	Economic record of both Cl. Ct. and Federal Circuit is hopelessly confounded and of no analytic use for future cases.
2007 2008 and 2009	*CCA Associates*	Federal Circuit (2008) overturned finely crafted 2007 Cl. Ct. decision articulating return on equity as the basis for taking decision. Remand decision (2010) again found a taking in a creative re-analysis of the data.	Change in value of real property does not measure the diminution of net income compared to the correct denominator, owner's equity or investment in the property.

The Education of an Economist in the Arcane Law of Regulatory Takings

Published Articles

1. "The Role of the Economist in a Regulatory Taking Claim," California Land Use Law and Policy Reporter, March 1995.
2. "The Role of Economics in Regulatory Takings Cases," with Robert Trout, Litigation Economics Digest, 1, 1, fall 1995.
3. "Economic Considerations of Regulatory Takings Reform: Judicial Precedent and Administrative Law v. Legislative Intent," BNA Environmental Reporter, August 4, 1995.
4. "Economic Impacts, The Bennett Decision, and Investment-Backed Expectations," 6 Cal Land Use Law and Policy Reporter 11, (1997).
5. "Penn Central's Economic Failings Confounded Takings Jurisprudence," 31 The Urban Lawyer 2, 277 - 308, spring 1999.
6. "Economic Backbone of the *Penn Central test* post *Florida Rock V*, *K&K* and *Palazzolo*," 32 Environmental Law Reporter 11,221 (October, 2002).
7. "'Sophistical and Abstruse Formulas' Made Simple: Advances in Measurement of *Penn Central's* Economic Prongs and Estimation of Economic Damages in Federal Claims and Circuit Courts," 38 The Urban Lawyer 337, spring 2006.
8. "Average Reciprocity of Advantage: 'Magic Words or Economic Reality: Lessons from Palazzolo," 39 The Urban Lawyer 319, spring 2007.
9. "Confusion about "Change in Value" and "Return on Equity" Approaches To Penn Central Test in Temporary Takings*,"* 38 Environmental Law Reporter 10486, July 2008.
10. "Temporal Posture & Discount Rates for Groundwater Contamination Damages," 40 Environmental Law Reporter 10262, March 2010.
11. "Penn Central's Ad Hocery Yields Inconsistent Takings Decisions," 42 The Urban Lawyer 549, summer 2010.
12. "Federal Circuit's Economic Failings Undo the Penn Central Test," 40 Environmental Law Reporter 10914, September 2010.

CLE Presentations

1. "Economic Considerations of Regulatory Takings: 'The Mouse that Roared,'" CLE International Regulatory Takings Conference, San Francisco, March 1995.
2. "Economic Considerations of Regulatory Takings*,"* Presentation, *Restructuring in California: The Morning After*, Law Seminars International Conference, Sacramento, CA, September 1998.

3. “Bennett & Undue Economic Hardship: Florida Rock V’s ‘Stable Framework’ to Analyze Penn Central’s Significant Factors,” Law Seminars International Conference, San Francisco, November 1999.
4. “*Penn Central’s* Economic Failings Confounded Takings Jurisprudence,” ALI-ABA Conference, Boston, September 1999.
5. “Vicissitudes of Valuing a Temporary Takings Claim; or, 'Sophistical and Abstruse Formulas' Made Simple." (with thanks to Justice FRANKFURTER @ (338 U.S. 1, 20, 1949), ALI-ABA Conference, Boston, October 2005.
6. United States Court of Federal Claims, 18th Judicial Conference, “Damages against the Sovereign: Theory and Practice,” Panelist on Damages, Washington DC, November 2005.
7. “Valuing a Temporary Takings Claim: ‘Every Which Way but Right,’” ALI-ABA Conference, Inverse Condemnation and Related Government Liability, Scottsdale, April 14, 2007.
8. "Economically Impoverished Federal Circuit Decisions dim the *Polestar* of the *Penn Central* Test," forthcoming ALI-ABA CLE Inverse Condemnation seminar, February 2011, Coral Gables FL.