Valuation in Rate Cases

Henry Rottschaefer

Follow this and additional works at: https://scholarship.law.umn.edu/mlr
Part of the Law Commons

Recommended Citation
Rottschaefer, Henry, "Valuation in Rate Cases" (1925). Minnesota Law Review. 1462.
https://scholarship.law.umn.edu/mlr/1462

This Article is brought to you for free and open access by the University of Minnesota Law School. It has been accepted for inclusion in Minnesota Law Review collection by an authorized administrator of the Scholarship Repository. For more information, please contact lenxx009@umn.edu.
It is a legal commonplace that rates prescribed by public authority must, ordinarily, permit a fair return to be earned on the fair value of the property devoted to the public use if these are successfully to leap the constitutional barriers protecting private property. Three decades of litigation might reasonably be expected to have sufficiently definitized the vague generality of the preceding statement to forestall such extreme discrepancies between the value judgments of opposing experts as many present day cases reveal. It has recently been said:

"That there is in such figures small security against confiscatory rates, little protection to the public against unfair charges for public service, and but meager ground for hope that the values of utility securities can be stabilized or that confidence in the governmental function of rate making can be established, until some more certain method is found for arriving at rate base values."

The most forcible statement of judicial discontent with the present state of the law of the constitutional measure of the rate base is that of Mr. Justice Brandeis in the Southwestern Bell Telephone Case. That opinion is frankly an argument for abandoning the attempt to work out an intelligible rate base theory in terms of value and to substitute therefor prudent investment. Such a shift will involve fundamental changes not only in the technique of applying the confiscation rule but also in the character of that rule itself. The issue between these competing rate base theories constitutes the crucial problem in the public utility field today. It would be somewhat rash to venture a present prediction as to the ultimate fate of the prudent investment theory. It may well turn on the answer to the more important question whether it should prevail. It is the latter that will be principally considered in the following discussion.

*Professor of Law, University of Minnesota.

1Indiana Bell Telephone Co. v. Public Service Commission, (1924) 300 Fed. 190.

A brief resumé of the historical development of the problem of rate regulation will give the necessary background for evaluating the competing rate base theories. The era that began with *Munn v. Illinois* has been marked by a considerable legislative extension of the field of public callings, an intensification of their control, and the creation of a great body of administrative machinery for effecting it. Each of these movements has involved limitations on individual freedom and interferences with habits of action so long established as to have acquired the character of vested interests. Authoritative price regulation was but a single phase of a broader conflict between groups for very concrete economic advantages. The state stepped in to effect a particular distribution of wealth. Its power to intervene at all was sustained against objections based on various constitutional guaranties, as was its power to do so through administrative boards. The issue next contested involved the question where final authority rested to determine the validity of rates fixed by public authority. The Supreme Court's original position, taken at a time when the problem of the confiscatory character of rates had not been clearly differentiated from the more general one of their reasonableness, vested it in the legislature. This was followed by an intimation evidencing a trend toward subjecting their reasonableness to judicial review, while shortly thereafter appeared a distinct statement that the power to regulate was not unlimited. The theory that due process required an opportunity for judicial review was definitely established in 1889, and remains today more strongly

---

*(1876) 94 U. S. 113, 24 L. Ed. 77.*


*See 3 Warren, The Supreme Court in United States History 296-318.*

*Munn v. Illinois, (1876) 94 U. S., 113; 24 L. Ed. 77.*


VALUATION IN RATE CASES

intrenched than ever. Its development was not so much a logical deduction from existing legal premises as an almost unconscious adjustment of legal views under the pressure of a felt necessity to protect what were deemed vital interests of liberty and property against attacks not always well considered.

The adoption of the theory of judicial review imposed on courts the burdensome task of evolving principles defining the limits of permissible regulation. The early tendency was to conceive the problem in terms of eminent domain, although there were occasional suggestions of an approach based on a contract theory. Neither is today an effective factor except in so far as stating the problem in terms of value may be considered a vestigial trace of the former. It has long been recognized that the problem presents a particular instance of determining the constitutional limits of the police power. An exercise of that power is valid if reasonable, and the factors on which that judgment depends will vary with the kind of question involved. It was sensed from the very beginning that the legality of authoritatively prescribed rates was in some manner dependent on their permitting some return. The relevancy of their effect upon income available for interest and dividends was both asserted and doubted. The measure-

14Evidence of the existence of such fears during the period prior to and immediately following the establishment of the doctrine of judicial review is to be found in briefs of counsel for the companies in the Spring Valley Waterworks v. Schruller, (1884) 110 U. S. 347, 354, 28 L. Ed. 173, 176, 4 S. C. R. 48 and C. M. & St. P. Ry. Co. v. Minn., (1890) 134 U. S. 418, 33 L. Ed. 970, 10 S. C. R. 462, 702; in an address of Justice Brewer reported in Vol. 16 of the Reports of the New York State Bar Association; and in an article by W. F. Dana in 9 Harv. L. Rev. 324.
17The bill of complaint in Peck v. Chicago & N. W. Ry. Co., (1876) 94 U. S. 164, 24 L. Ed. 97, contained an allegation that the rates in effect before their reduction by regulation did not produce sufficient income to pay interest on the road's debt at the legal rate.
ment of the rate base by market value,\textsuperscript{19} capitalization,\textsuperscript{20} investment, \textsuperscript{21} and present cost,\textsuperscript{22} had been either suggested or adopted in cases prior to Smyth \textit{v. Ames}.\textsuperscript{23} These confused gropings toward definition in the vague due-process standard received a measurable synthesis in the famous dictum in the \textit{Smyth Case} that “what the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience.”\textsuperscript{24} This had at least the merit of stating the problem with greater definiteness than had been theretofore attained. The Court, however, essayed an answer to at least a part of the problem in the familiar rule that:

“In order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case.”

The possibility of omitted factors was expressly conceded. This eclectic formula, though a mere summation of every theory that had been theretofore advanced, has exerted, and still exerts, an influence far beyond its merits.\textsuperscript{25} It has been the starting point of practically every discussion of valuation by courts in subsequent rate cases, and it is only within the last few years that its claims have been vigorously challenged.\textsuperscript{26} It has become quite the fashion to condemn it with unsparing criticism, much of it justifiable even if at times couched in the intemperate language of violent partisanship.\textsuperscript{27} Its critics should at least recognize its right to be


\textsuperscript{22}Capital City Gas Light Co. \textit{v. Des Moines,} (1896) 72 Fed. 829.

\textsuperscript{23}(1898) 169 U. S. 466, 42 L. Ed. 819, 18 S. C. R. 418.

\textsuperscript{24}(1898) 169 U. S. 466, 546, 42 L. Ed. 819, 849, 18 S. C. R. 418.

\textsuperscript{25}For an excellent and accurate statement of its transformation and present position, see E. C. Goddard, \textit{Fair Value of Public Utilities,} 22 Mich. L. Rev. 652, 777.


\textsuperscript{27}Richberg, \textit{The Supreme Court Discusses Value,} 37 Harv. L. Rev. 289.
judged in part in the light of the development the problem had reached when the Smyth Case was decided.

The rule states a value theory of the rate base, and enumerates evidentiary facts relevant in its ascertainment. It is not the purpose of the present discussion to trace the process which has practically eliminated the consideration of every factor but actual cost and cost-new.\textsuperscript{28} The present state of the law requires depreciated reproduction cost to be considered,\textsuperscript{29} but it is not necessarily the equivalent of the protected value.\textsuperscript{30} The cases since Smyth v. Ames have developed a considerable body of rules dealing with the elements to be included in a valuation\textsuperscript{31} and the unit property to be considered in their application,\textsuperscript{32} but the fundamental approach has remained practically unchanged throughout. The practice of commissions and courts has lacked exactness proportioned almost directly to the opportunity therefor afforded by the catch-all character of their working formula,\textsuperscript{33} although the former have been kept from adopting an investment theory principally by the fear of having their results disallowed by courts.\textsuperscript{34} The actual figures arrived at usually represent compromises, and the courts have not yet evolved the principles that circumscribe the area of legitimate compromise. It was stated in the Minnesota Rate Cases\textsuperscript{35} that:

"The ascertainment of value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all the relevant facts."

It is a perfectly apt characterization of the existing judicial attitude, and little progress has been made in definitizing the tests that determine the reasonableness of that judgment. Three decades

\textsuperscript{28}See E. C. Goddard, op. cit.
\textsuperscript{31}The cases dealing with this and other valuation problems are classified and analyzed in Whitten, Valuation of Public Service Corporations, Vols. I and II.
\textsuperscript{33}For an analysis of the actual practices of commissions in 363 cases during the years 1920-23, see footnote 14 to the opinion of Justice Brandeis in S. W. Bell Tel. Co. v. P. S. C. of Missouri, (1923) 262 U. S. 276, 67 L. Ed. 981, 43 S. C. R. 544.
\textsuperscript{34}See E. C. Goddard, op. cit., at pp. 669 ff.; 19 Mich. L. Rev. 849.
of rate litigation on the basis of *Smyth v. Ames* has given us *Smyth v. Ames* relieved of some of its patent errors and imperfections, but its eclecticism still generally accepted though the limits of choice have been somewhat circumscribed. There are insistent demands for discarding it which are justified in so far as they have reference to the habit of considering its formula as an answer to the problem it dealt with. The spell it has cast over legal thinking will have to be exorcised if the re-examination of the entire question now in process is to advance beyond the academic stage, but it would be fatuous to identify that with a reasonable solution of the problem. The soundness of the prudent investment theory is not established by demonstrating the insufficiency of *Smyth v. Ames* and the modified doctrines derived from it, and the inadequacy of judicial reasoning in their support. It would be futile to hope for its adoption for such reasons even if the method were logically correct. Prudent investment will have to justify itself by proof of its own merits. The situation invites a reconsideration of the entire problem.

The principle of authoritative price control has been most frequently applied to services requiring for their production a considerable capital outlay, although occasionally resorted to where the services were primarily personal in character. It has been essentially a limitation of the right of property and the entrepreneur's liberty of action, and the incidence of its effects has been on the classes owning selected types of capital goods. The factor that makes their ownership desirable is the opportunity it affords for securing an income. The economic significance of such goods consists in the fact that their technological position in the processes of production makes their employment therein practically indispensable, and, since their supply is not unlimited, their contribution thereto will have to be recognized in any rationally conducted system. It is, however, the legal institutions of private property and contract that enable their owners to demand and secure a price for that contribution. The very existence of the law of property and of contract involve a measure of authoritative interposition.

---


The terms "capital goods" or "capital" are used to obviate the legal connotations inevitably associated with the term "property."
in the economic order that is frequently obscured because a familiar
part of an accepted regime. The individualism that has helped
to mold our law has had its counterpart in a laissez-faire economics.
The same assumptions underlay both the legal and economic orders.
The right of property conferred upon an owner the power to
determine who should enjoy the services derivable from capital
goods and the terms upon which they might be secured, except in
a relatively small field. It was the existence of these powers that
made the institution of private property an effective factor in the
distribution of wealth, since they included the specific power to
fix prices and distribution is effected through the mechanism of
price. The material content of the right of property consists in
certain rights, powers and privileges exercisable by the owner that
have undergone considerable modifications and are likely to un-
dergo many more. The general modern trend is to reduce their
number. Every such reduction constitutes a taking of property
in the factual sense. If it bears upon those objects of property
that have been hereinbefore designated as capital goods, it is almost
certain to affect the position of their owners in the economic strug-
gle. Not all such rights, powers and privileges have an equal
economic significance. The particular powers referred to above
are unquestionably the most important from this point of view.
The imposition of the duty to serve all on reasonable demand, and
authoritative price fixing and price limitation, therefore, constitute
modifications of the right of property of peculiar importance that
affect its very essence when its function in a capitalistic economic
order based on individual initiative is considered. The difference
between them and other forms of regulation are matters of degree
only, but of such importance in dealing with a question that in-
volves primarily the adjustment of conflicting economic interests
that the problem raised thereby may be said to be sui generis. It
is probably inaccurate to say that there has evolved a changed
concept of property since that concept has never possessed uni-
formity nor lacked the quality of modifiability. The significant
thing is that property in capital goods has been classified on the
basis of the industry in which it is employed, and shorn of certain
economically significant powers if engaged in so-called public
services. Prices fixed by public authority have supplanted those
determined by a market in establishing the distributive share of

---

*See Robert L. Hale, Rate Making and the Revision of the Property
Concept, 22 Col. L. Rev. 209.*
capital embarked in utility enterprises. The decisions holding that
the legislative power to fix rates is a limited one in effect declare
that the due process clause recognizes and protects that economic
function of property in capital goods. The doctrine of judicial
review has forced the courts to evolve a legal theory of distribu-
tion whose development can be traced in the long line of rate cases.
The presently competing rate base theories can best be evaluated if
rate regulation be considered from that point of view.

The phrase "distribution of wealth" may refer either to the
division of their joint product among the factors of production,
or its division among the social groups controlling those factors.
The former is ordinarily considered an economic problem; the lat-
ter is too much affected at innumerable points by legal institutional
factors to be so narrowly conceived. The economist's task is to
analyze the forces that operate in a given situation to determine
the former, and in doing so he invariably makes certain assump-
tions that condition their operation. An economic order based on
individual initiative and free competition is the chief of these
assumptions. The state's primary concern is with the latter prob-
lem. Our legal order is in general committed to the same assump-
tions made by the economist. It cannot, however, overlook the
practical fact that the actual distribution that occurs when economic
forces are allowed full scope is determined by the concurrently
existing distribution of economic power in the form of legally rec-
ognized claims and powers based on ownership of property. It
frequently exercises its taxing powers to secure a final distribution
of the social product other than would have resulted from unregu-
lated economic action by exercising the control over economic
forces secured through the wealth obtained from taxes to direct it
into channels where it would not otherwise have gone. Nor can it
blind itself to frequent and important failures of the facts to con-
form to its general assumptions. This sometimes induces legis-
lative efforts to enforce conformity, as witness the anti-trust laws,
and at other times measures aimed at securing those social benefits
which it is conceived would result if its assumptions were actually
realized. Interferences of the kind first mentioned imply a partial
denial of the general soundness of the theory of a natural harmony
between individual and social welfare; those of the latter type
involve an assumption that the general welfare demands no more
than what free competition would give. Price regulation has in
general aimed to secure only the latter,\textsuperscript{40} and has been most fre-
Valuation in Rate Cases

1 Not infrequently invoked where an element of monopoly has been present. An analysis of the rate cases will show that the courts have been in part influenced by the desire to insure owners of public utilities an opportunity to secure that income which they would have tended to receive had the industries been actually competitive.1 It is doubtful whether any considerable modification of that approach can be expected, and apparently none is suggested by advocates of prudent investment except in so far as that theory is supported on a contract theory.2 The succeeding discussion will tentatively assume its validity, and consider the factors that would determine that income under competitive conditions.

It may be safely premised that the income accruing to capital depends on the value of its products as fixed by the market. The ideal market posited by competitive economics assumes free competition among sellers and among buyers. The capital fund at any given time consists of an indefinite number of concrete capital goods adapted to the production of particular goods or services. As long as the capital goods required for the production of any given commodity or service are reproducible, the price of the latter tend toward cost, including a capital return itself determined in the capital market. If those capital goods are reproducible only at an increasing or increased cost, a differential income accrues to the less costly capital, which becomes a negative differential if it is reproducible at decreasing or decreased cost or if technical improvements reduce the capital required for each unit of product. If, however, the capital fund is invested in goods that cannot be reproduced,3 the price of the product has no necessary tendency toward cost even under conditions of competition, and a so-called unearned increment results. It is apparent, therefore, that the income on capital devoted to the production of any commodity or service tends under competition to be determined by the capital cost that has to be incurred to reproduce the commodity or service at the time in question. The fact that the capital fund is not an abstract substance of freely interchangeable units, but embodied in concrete capital goods adapted to very special technical processes, destroys any equivalence between that capital cost and return on

---

1 See Steenerson v. G. N. Ry. Co., (1897) 69 Minn. 353, 72 N. W. 713.
2 See articles by R. H. Whitten and Donald R. Richberg referred to in footnotes 26 and 27.
investment except during periods of stable prices and static technical conditions. It follows that the capital base tends to be the outlay required to supply the capital goods necessary to reproduce the commodity or service. This analysis is valid whether the industry is expanding or merely stationary for in the latter capital replacements are continually required; it is inapplicable only during the period that an overexpanded industry is adjusting itself to eliminate that condition. If, then, the purpose of regulation is to secure for the public the prices it would have to pay if the industries were competitive, the rate base indicated by the logic of economic analysis, except where the industry is overexpanded, is the cost of furnishing the capital required to produce the service at any given period, which is, as applied to capital embarked in the industry at earlier periods, equivalent to investment only on the assumption of static price and technical conditions during the larger period including both those just referred to. This view has received no judicial recognition, although the theory that the rate base should be determined by the cost of reproducing an equally efficient plant as that being valued, which approaches nearest it, has been discussed in several cases.44

The views above advanced indicate a result that bears superficial resemblance to the cost of reproduction theory. There is, however, one significant difference. Cost of reproduction is usually applied to the actual plant rendering the service.45 This operates pro tanto to deprive the public of the benefits of increased technical efficiency, and that is certain to represent a dead loss to the public in an era of progressive technical improvements and advances. This burden will not be present in every case where the actual plant antedates the time of the investigation, but only in those where an unprogressive technical policy has been pursued. There is a strong probability that it will to some extent exist in every case. The rate base suggested in the preceding paragraph relieves the public of this burden, which it would not have to bear under conditions of competition.

44For purposes of simplifying the discussion, the distinction made by economists between capital and land is disregarded.
The discussion thus far has not stressed the fact that competition requires time to effect its results. The result of that factor is that the actual capital cost element of prices at any given time will not be that which would have to be incurred to reproduce the product or service at that time, but rather that which was incurred at some prior period. There exists, therefore, the possibility that the public would have to pay prices during the interval in excess of those indicated by the suggested standard. It is a fair question whether that standard should be modified to reflect that factor. The issue is whether the economic rate base shall be determined on the assumption of ideal or actual conditions of competition. The latter course would attach too great a significance to the particular moment at which a rate question arose. The former affords a more effective technique for arriving at a judgment based on the more important permanent forces that determine prices in a competitive economic order characterized by a condition of perpetual flux, and is for that reason preferable. The suggested theory, therefore, requires no modification to reflect the time factor that prevents the actual economic situation at any given time from corresponding exactly to that which ideal conditions of competition would create.

The concrete issues in rate cases involve more than conflicting rate base theories. The rate base must be expressed in monetary terms, and that raises difficult price questions that can be avoided only by adopting the prudent investment theory. A public utility plant is an aggregate of specific items of property technically combined into a functional unit that furnishes the service. There is ordinarily no market of sufficient breadth in which such units are bought and sold to perform the task of definitizing and translating the effects of the significant economic forces into terms of prices. This circumstance forces resort to indirect methods. Those that suggest themselves most readily are the determination of the aggregate prices of the stocks and bonds outstanding against the enterprise, the ascertainment of the balance sheet figures, and appraisal. The first two can be employed to secure a price expression based on the rate base theory heretofore suggested only if the service whose rates are in question is being rendered by a plant in all technical respects identical with one that would be then constructed to render the same service, and if there has been in no respect any

change in the money outlay required to construct it. The im-
probability of such a concurrence of conditions renders them im-
possible for any practical purposes. The first would, moreover,
have to be rejected in applying that rate base theory for the same
reasons that have caused its practical elimination in applying the
"fair value" rule. An appraisal furnishes the only practical
method, even as it constitutes today the most common method
employed to get a price figure under the cost of reproduction
theory.

Every attempt to translate into a definite money figure any
rate base, other than one based on the investment in the particular
plant whose rates are in question, requires a judgment as to what
prices shall be taken. This demands, whenever the method in-
volves an appraisal, a great mass of particular judgments on the
prices of the innumerable specific items that go to make up the
plant. The orthodox cost of reproduction theory still stresses the
prices prevailing at the date of the inquiry which, however, not
infrequently extends over a considerable period during which price
levels are not always stationary. A constant readjustment of
prices to reflect fluctuations occurring during that period would
reduce the whole process to an absurdity, and its development to
its full logical extent would require the constant and almost per-
petual supervision of courts to prevent confiscation in times of
rising price levels. Rate regulation would become a practical im-
possibility as long as the practice of judicial review was retained.
The situation demands not only that rates be prescribed for longer
periods than a day, but also that the judicial determination of their
validity shall fix the status to be maintained for a considerable
period. A more rational theory of the effective prices for a rate
base appraisal is, therefore, required. That is sometimes attempted
by taking prices as of a given date, at others average prices for an
assumed period, and at times prices which an analysis of price
trends is deemed to indicate as those according with the current
normal price level or that of the immediate future in which the
rates are to be in effect. The prices indicated are taken on the


theory that they fairly represent the general condition of affairs that will exist during the period the rates are to be in force. The benefits and burdens that result from minor price fluctuations or movements during that period are thereby necessarily secured or borne by the industry. Constitutional principles cannot be construed with such meticulous refinement as to avoid that result. The first two methods are mere compromises with nothing to recommend them except that they furnish standards relatively easy to obtain; they are bound to produce discrepancies between their theory and the facts unless the price level is static. The last is the only method even measurably adapted to reduce those discrepancies to a minimum during a time of changing price levels, since it does aim to give a quantitative expression to a prediction as to those changes based on an elaborate statistical analysis. There is nothing in the current reproduction cost theory that furnishes a basis for making a choice between them, although post-war inflation and the more recent partial deflation have raised the problem in an acute form. The nature of the problem is such that opinion and prediction cannot be eliminated. Each method involves them. The most reasonable course is to select the method that takes into account the greatest number of factors operating in the situation. That is clearly the last, for it omits no factors considered by the others and evaluates the most significant one as well. Its only drawback in comparison with the others is that this very effort to take into account the price trend affords an additional opportunity for guess-work. The analysis of price movements is not yet an exact science, but sufficient data exist to form at least an intelligent basis for their prediction with as reasonable a degree of accuracy as is customary in human affairs. The suggested drawback is not, therefore, sufficient to affect the relative theoretical superiority of this method. These same price problems exist if the cost of reproducing the service is taken as the rate base, and the conclusion just stated holds where its application is involved. It is in fact implicit in the approach adopted that the public secures economic justice if public service industries are limited to an opportunity to obtain that income which they would obtain if competitive. Effective competition will appear, even where conditions of competition are completely free, only if the capital cost that must be incurred to create the plant for furnishing the service is deemed fairly representative of cost conditions likely to prevail for a future period whose duration cannot, of course, be exactly defined.
This is sufficiently patent where the price trend is downward and where, though upward, it is marked by considerable instability. It is true, though to a lesser extent, where it is definitely believed to be upward for a considerable future period. The price trend is, however, an important factor affecting the rise of competition, and the method that takes it into account furnishes the only economically sound one for selecting appraisal prices in applying the cost of reproducing the service theory.

The rate base theory above advanced is a cost theory as truly as is that of prudent investment despite its development from income as a starting point. It is such because of the economic fact that competition tends to drive incomes derived from reproducible factors down to a cost basis. It, therefore, avoids the objection validly urged against the "fair value" rule that it involves the "vicious circle" of making the constitutionality of rates turn on a factor inseparably bound up with rates. This logical fallacy, though real, is not practically as serious a matter as is frequently urged since the rules actually developed in ascertaining that "fair value" have eliminated many of the fallacious results that its logical application would have involved. It is, however, well to be rid of this erroneous statement of the problem, and the criticisms referred to should hasten that result. The cost of reproduction of the service is not one among several factors for determining the rate base as is cost of reproduction under the eclectic practice based on the development of Smyth v. Ames. It is advanced as the sole economically sound principle in the situations in which it applies, and it applies except in so far as the contribution of non-reproducible economic goods is necessary in producing the service. A conspicuous illustration of the latter is presented by

---

"Robt. L. Hale, The "Physical Value" Fallacy in Rate Cases, 30 Yale L. Jour. 710.

"For example, good will and franchise value are disallowed as elements to be valued, and the very emphasis on cost of reproduction acts as a corrective factor as would the use of any cost basis.

"See concluding paragraph of Justice Brandeis' opinion in the S. W. Bell Tel. Co. case, (1923) 262 U. S. 276, 290, 67 L. Ed. 981, 986, 43 S. C. R. 544, 547. The cost-of-reproducing-the-service method could and would in practice extend to these non-reproducible elements because these become assimilated to other capital through the process of capitalization. Their capitalization is distinct, however, in being unaffected by economic cost factors. The method falls short of being a cost theory to that extent. The same is equally true of the accepted cost-new method, and, in the strictest economic sense, of prudent investment. The situation is due, in each instance, to the fact that there is a distinction between economic cost and cost to the particular capitalist or entrepreneur."
the case of rent legislation. The theory does not avoid the difficulties that arise in applying the current cost of reproduction method, nor the necessity for judgments on complicated matters. It rather raises additional difficulties in that it requires a judgment on the plant that would be presently constructed to render the service. The present method is at least constrained within some practical bounds by the fact that it is ordinarily an existing plant whose reproduction cost is to be ascertained. It also differs from prudent investment in the same respect, and also in attaching no significance to the actual costs of any existing plant. It would give the same figures as the standard cost of reproduction method, modified to fix appraisal prices by reference to price trends, only if static technical conditions are assumed, and as the prudent investment theory only on the further assumption of a static price level. It is, with all its recognized defects, a more correct method for evaluating the forces that give the equivalent of justice under competition in monopolistic situations and where that process cannot be effected through a market.

The preceding analysis considered economic factors only, was intended to indicate the capital base that would tend to fix the capital cost element in prices under competitive conditions, and was expressly predicated on the assumption that the purpose of price regulation was to insure the public the equivalent of competitive prices. It adopted the narrow and technical conception that those factors only are economic that reflect general and permanent forces in the processes of the production and distribution of wealth and price determination in an economic order based on individual initiative and competition. The definition was accepted with a full realization that the organic interrelations of social life prevent any exact definition of what is, and what is not, economic. It is justified because it fairly accords with conceptions implicit in the economic analysis of both the courts and their critics, and because it affords a convenient basis for reconsidering the entire problem. It shows clearly that the adoption of the indicated rate base as the constitutional measure of price regulation involves certain assumptions. The same assumptions underlie the economic considerations urged in support of both the standard cost of reproduction and prudent investment theories. The issue thus becomes whether

---

52 Donald R. Richberg, A Permanent Basis for Rate Regulation, 31 Yale L. Jour. 263.
the constitution requires them to be made in dealing with this problem.

The various constitutional guaranties do not constitute a perpetual charter for any particular economic order. The constitution does not impose upon society the standards that would prevail were competition the sole regulative force of economic activities. There is frequently a wide disparity between its results and the general welfare, and many desirable social ends would be sacrificed if that were the law. The rate base heretofore suggested as that required by economic analysis would constitute the constitutional measure of rate regulation only if technical economic factors are its exclusive determinants and competitive standards fix the limits of price control. There is no general presumption in favor of any such assumptions, and they are being constantly ignored in taxation and police power measures that pass the test of judicial review. Losses incurred in the public operation of street railways may be spread over the community at large; a regulation is valid even though it deprives one of the competitive advantage involved in a favorable location; and the exigencies of war may justify price control intended to prevent producers from realizing the full benefits of competition. The courts in assessing the validity of price control are not limited to considering economic factors and their functioning under competitive conditions, but may appraise its legality by reference to a wider field of social ends. A study of the rate cases shows that they have in fact done this very thing. An early case expressly disclaimed any concern with the purely economic features of the problem. That view is, however, untenable and has never been a serious factor in the judicial approach to rate questions. Economic considerations are constantly appealed to in determining the propriety of including particular elements in valuations and the constitutionally protected rate of return. Non-economic factors have not been without their influence. Legal logic might justify the view that the extension of the field of price

---

control and the adoption of specific rate fixing did no more than definitize a risk to which certain businesses were always subject, but the courts could not overlook the fact that a profound change involving a considerable readjustment of existing economic relations was in fact being effected. The not unnatural feeling that the entire burden should not be borne by those who had embarked their capital in those industries prior to the change is reflected in the idea that the entire burden of depreciation in values due to changing price levels should not be borne by investors, and the frequent appeals to the obligations of justice. The treatment accorded franchise values in the Consolidated Gas Case is based wholly on the desire not to disappoint entirely the expectations of investors. These modifying influences have not all reacted in favor of the producer. The refusal to apply cost-new logically to permit the capitalization against the public of its own expenditures in paving over mains, the hesitancy that has characterized the treatment of land values, the constant reiteration that rates must be fair to the public as well as the company, and the very invention of the concept of "fair value" as a substitute for value, evidence a consciousness that the problem involves a balancing of other interests than the purely economic. Nor can the actual development be understood without a recognition of the part played therein by the individualistic social philosophy that dominated the period when the problem first arose and solutions were attempted and that has persisted with somewhat diminished force ever since. Considerations of expediency are reflected in fixing the rate of return by taking into account the necessity for attracting capital. The whole process evidences an attempt to develop a fair and just basis for reconciling the conflicting claims of different economic

---

59This argument is advanced by Professor E. C. Goddard, op. cit., at pp. 793 ff.
groups during a transitional period by evaluating their respective claims by reference to current notions of both justice and the general social good. The problem demanded that economic factors be given some significance, but the courts were right in declining to accept them as decisive.

The constitutional rate base, therefore, is not necessarily the capital sum that would tend to fix capital costs under competitive conditions. The legitimacy of non-economic considerations in its determination cannot be denied. It cannot, however, be overlooked that price regulation has thus far been motivated by the desire to protect the public against economic injury incident to the absence of effective competition. The fact that, broadly speaking, our society is still committed to the theory that competitive prices are fair prices constitutes some measure of fair and reasonable rates in non-competitive industries. To apply a different standard to the latter is discrimination in fact which becomes particularly unfair when given a retroactive effect. The specious justification sometimes alleged that the public is entitled to reasonable rates irrespective of their effects upon producers is based on the false assumption that one group in the community is justified in using its political power to force another group to confer upon it an economic advantage. It gains no additional validity merely because society can accomplish exactly that result through a judicious use of its powers to engage in business and taxation. The very fact that it has those powers at its disposal rather suggests that it resort to them when it desires to accomplish that result instead of to the method of forcing an economic loss on those who have embarked in an enterprise for purposes of economic gain. The theory is somewhat inconsistent with the principles thus far developed in defining the power of government to prevent the abandonment of unprofitable public utility enterprises, and those implicit in the decisions upholding the federal power to control intrastate rates.

These indicate a policy that the economic advantages of one group shall not be acquired at the cost of forcibly imposing economic disadvantages on other groups in fields where economic motives predominate. Fixing the prices of public utility services when

---


rendered by private capital at points below those that competition would give will require a more effective justification than is furnished by that theory. It will have to take account of the factors already referred to and the further fact that the principal interests involved in price fixing are the economic claims of different groups.

The situation raises two distinct problems. The one involves the determination of the conditions under which it is reasonable to apply to public utility enterprises a different standard of economic justice than is contemporaneously applied to other businesses; the other requires the ascertainment of the standard that shall be applied. The former will be first considered. The constitution does not protect every reasonable expectation against frustration by governmental action, but the fact that a given change of law produces that result is one factor in determining its reasonableness. The period that preceded legislative price fixing in fact relied upon competition to protect consumers. Capital invested during a competitive era reasonably expected an opportunity to earn at least the returns that competition would permit, and consumers in general were satisfied to rely upon the same force. This was as true of common carriers as of other businesses. The first legislative fixing of railroad rates modified the economic-legal situation no less than did the first extension of price control to elevators. This fact is not eliminated by a legalistic logic based on the common law doctrine that the common carrier could charge only reasonable rates. Any governmental regulation of prices below competitive standards would defeat the reasonable expectations of those who had invested before the power of control had in fact been exercised. The position of capital thereafter invested would be somewhat different. It is made at a time when a distinct classification of capital has been in fact effected on the basis of its liability to price control. This is fair notice of a difference that effectually estops claims based solely on the assumption of a right to equality or similarity of treatment. This fact, and the uncertainty as to the constitutional limits of price control, should have prevented any reasonable person from entertaining an expectation that his economic claims were to be measured by the competitive standards prevailing in other fields. A limitation to lower standards could scarcely be considered an inequitable interference with hopes that he had been induced to entertain in reliance upon public action or inaction. These considerations do not demand that the rate base measure shall vary with this time factor. They do, how-
ever, indicate elements that should be taken into account in reaching a judgment on the comparative merits of competing rate base theories.

Public control has not only been extended to new fields, but its character has undergone considerable modification. There are phases of regulation not immediately involving price control that have a direct bearing on what would constitute a just standard for measuring the income public utilities should be permitted to earn. Prices might reasonably be fixed below competitive levels if the general scheme of control relieved public service capital of any risk to which competitive business was subject. This condition is partly realized in those states that require certificates of convenience and necessity before persons are permitted to engage in specified public callings. This factor justifies non-competitive price standards even as applied to capital invested prior to the assertion of price control since the protection these provisions afford extend to it. It is not unreasonable for the public to demand a price for that advantage. If regulation is so adjusted as to protect public utility capital against sudden depreciation due to unforeseeable and incalculable technical advances, it would be reasonable to eliminate the chances of gain from forces that frequently give particular capital differential returns in a competitive system. The same is true if it is relieved of any risks incident to all business enterprise. There are other conditions that should have an opposite effect. Fairness requires that investments made under public compulsion be accorded more favorable treatment than those voluntarily made. Such capital may reasonably demand that it be relieved not only of the risks incident to competition but also those inevitable in any business venture.

There are, therefore, numerous factors to be weighed in determining the reasonableness of applying non-competitive price standards to public service rates. The early stages in the development of the constitutional limits of price control reflect the confusion of a transition period when the lines along which adjustments should be made are but vaguely perceived. The principles worked out during that period tend to persist even though the terms of the problem have changed. There was considerable justice in applying conceptions of fairness shaped under the influences of an individualistic and competitive society to capital that had in fact been invested while those theories prevailed. There is no need to continue to apply them to capital invested under radically different
VALUATION IN RATE CASES

It is perhaps impossible to determine at this date how much of existing public utility capital was invested during the period when laissez-faire was the policy in that field. It is certain that a considerable part of it was invested during the period of regulation. Considerations of convenience prevent differences in their treatment. The existing uncertainty and confusion have resulted in no small part from retaining in the field of public utilities conceptions of economic justice based on the assumptions of a competitive economic order. It should frankly be recognized that public utility capital today constitutes a distinct class of property, and that existing conditions require and justify abandoning the attempt to define its economic claims by reference to competitive standards. This demands no more than an express recognition of practices implicit in the actual treatment courts have accorded the problem. Its conscious adoption as an assumption in evolving a reasonable substitute standard is essential if a rational technique is to be devised for adequately dealing with a complex question.

It may safely be premised that public utility property should be accorded reasonable treatment. Such a statement is, however, as inadequate as the formula of *Smyth v. Ames*. The issue is the tests that shall determine what is reasonable, and these can be developed only by reference to the significant elements in the situation. The present movement of price regulation began as, and continues to be, a substitute for either competition or public ownership and operation. It continues today to function in a society committed in general to a theory that economic activity should be left to individual initiative regulated by competition. It is an attempt both to secure the assumed benefits of these forces and relieve the community of the risks that it itself would have to assume under public ownership and operation. An attempt to predict how long the public will continue to prefer private initiative in these fields would be futile. There is as yet no broad movement away from it. The growth of population is certain to require a progressive expansion of public utility enterprises demanding new capital. Considerations of expediency alone, therefore, suggest a policy that will encourage continued investment in these fields. There will have to be compensating advantages for the limitations and restrictions imposed lest the disparity of treatment cause the diversion of new capital into competitive businesses. The possible compensations are comparatively limited in number. The most feasible and reasonable method is to redistribute the
various risks involved in business enterprise. The reasonable standard should be so fixed that the disadvantages imposed on public utility capital in limiting its income below competitive levels are offset by compensating advantages relieving it of some of the risks to which ordinary capital is subjected. Such a course would be not only expedient but fair and just.

Ordinary capital is subject to a variety of risks. There is first of all the competition of other capital rendering identical services. There is also the competition of substitute services. The growth of bus lines has seriously affected railroad traffic in several states, including Minnesota. There is always the possibility that changed conditions may practically wipe out the demand for the product. The eighteenth amendment reduced a considerable capital to junk. Technical advances may lessen the cost of producing the service, make possible an improved service at the same cost, or cheapen the cost of capital goods so that a smaller capital outlay is required to produce the same service. Counsel for the public in *Smyth v. Ames* sought to force the railroads to bear the risks of a falling price level. Each of these risks has as its counterpart the possibility of an advantage to the public. It is in part for bearing these risks that capital demands and secures compensation. It has elsewhere been shown that there are certain risks borne by the public from which not even competition can relieve it, and that these have as their counterpart the possibility of advantages to certain capital. The most striking recent example is that afforded by the rapidly rising price levels of the war and post-war period. This complex of risks and countervailing advantages furnishes the raw material out of which may be fashioned a reasonable adjustment between the conflicting claims of the public and investors in public utility enterprises. There is nothing in the past conduct of either group warranting a hope that they will be governed by anything except their own immediate advantage. The era of rising prices that began shortly after *Smyth v. Ames* has caused the rather suggestive situation that each is now contending for what the other then stood. The matter is one that the court will have to settle.

The real issue between the public and the utilities concerns the principles that shall determine the income the latter are to receive. The theory just advanced would not result in uniform

---

principles in the entire field. There would be differences to reflect differences in the distribution of these various risks because the policy of regulation was not the same in all cases. The measure of fair treatment is not the same for a water company with an exclusive franchise of definite duration as it would be for a railroad company subject to the unlimited competition of bus lines. The position of utilities with practically protected monopolies is not to be compared with that of the railroads even when these have the partial protection against competition by substitute services that the requirement of certificates of convenience and necessity affords. The former is insured an exclusive opportunity to realize the benefits of an increasing market; the latter is guaranteed no such opportunity. The principles for fixing a fair income for public utility capital could be either mediated through the rate of return or reflected in the rate base. The former permits of greater flexibility and should, therefore, take care of factors susceptible of direct modification by regulation. The latter need reflect only those risks relatively independent of direct authoritative control. The principal one of this character from the point of view of capital is lowered production cost, and as far as it affects the public increased production cost, whether due to technical factors or changes in the value of money. The same considerations require the rate base to reflect only those countervailing advantages that are inevitably linked with those types of risk.

The question, therefore, is whether it is just and expedient to state the rate base in terms that shall both relieve the utilities and public of the risks, and deprive them of the advantages, incident to changing costs. The contest between them since Smyth v. Ames has been waged around that point. The emphasis on the necessity for considering present prices constitutes a recognition of the claim of the utilities to at least a part of advantages due to rising prices, while the insistence upon applying reproduction cost to the actual plant at the same time prevents the public from realizing the benefits of technical improvements in the process of rendering the service. This inequality is not offset by the possibility of public advantage if prices decrease because of the indicated effects of applying them to the actual plant. The reproduction-cost method as ordinarily applied is for this reason unfair to the public. Would investment furnish a more equitable give and take? It would relieve both of the risks incident to changes in the price level, but would be no more effective than the other
method for securing the public the benefits of improvements in the art. The former would, however, permit the capitalization against the public of price increments in the case of capital goods that represent a stage of technical efficiency less than the public would tend to get under competition for which the possibility of a capital decrement in respect of the same capital goods is scarcely an equivalent. Investment effects a somewhat more equitable compromise of the mutual risks and advantages than does cost-new. Its adoption even in the qualified form of "prudent investment" would conduce to certainty of income which most investors would willingly pay for by the sacrifice of contingent gains procurable only in exchange for possible losses. This factor constitutes one of the principal reasons urged by Justice Brandeis in support of his theory. The other is the necessity of adopting a rate base that eliminates the opportunity for wild guessing if regulation is to become a policy affording any hope of success and avoiding the waste involved in its present administration. A member of the Minnesota Railroad and Warehouse Commission was recently reported to have interpreted the trend of judicial decisions on valuation matters as an argument for curbing expenditures before regulatory bodies because their function is only preliminary to rate making which is finally performed by the courts. It would be useless to add anything to what Justice Brandeis has said on these phases of the question. His position on them is in every respect sound.

The general superiority of the investment theory does not involve any claim of perfection for it. It is bound to produce discrepancies between the actual income utilities would be entitled to earn and the contemporaneous competitive standards that may appear very unjust in an era of rapidly rising prices if that increase is due to causes that could not reasonably have been foreseen. Its application under such circumstances can be justified only because it affords utilities a compensating protection against rapid price decreases. The balancing of these disadvantages and advantages will probably be a rather approximate one, but it is doubtful whether a permanent policy can take account of such

---

extraordinary factors. Gradual price changes that show permanence can be adequately provided for by permitting the policy as to replacements to take them into account. The application of the theory to the case of donated property raises a much more difficult question. The classic example is furnished by the railway land grants. These donations were in fact made as a quid pro quo for undertaking ventures deemed of public importance and for the public benefit at a time when the government did not itself wish to do so. The equity thus raised should be considered, and the theory might reasonably be modified in this respect despite the difficulties of defining the extent of the modification. This seems fair despite the argument that can be made that such donations make the public a co-entrepreneur entitled in perpetuity to a return in the form of lower rates by the measure of that item of capital cost. There is one other consideration that should at least be suggested. The present trend of regulation is to limit the right to withdraw from the public service. If the limits on that power are to be defined in terms of confiscation, and the existence of confiscation is to be determined by reference to investment, public utility capital is effectively prevented from shifting to more profitable fields. This, coupled with the power to compel further extensions, may at times inflict a serious disadvantage for which there is no compensating advantage yet offered in the field of regulation. The desirability of definiteness and certainty in the rate base suggests that this be cared for through a theory of capital charges.

The preceding discussion must have made it apparent that the fair and reasonable measure of public utility incomes is a function of both the rate base and the rate of return. Certain risks and elements have been indicated that cannot conveniently be reflected in the rate base consistently with the reasonable demand for definiteness and certainty therein. The principles that are to determine the rate of return will accordingly have to be adjusted to those adopted for measuring the rate base. This interdependence is clearly recognized in the opinion of Justice Brandeis in the Southwestern Bell Telephone Company Case in so far as capital raised by borrowing is concerned. The capital charge on borrowed capital is to be the rate contracted for for at least the duration of the loan if reasonable, financial judgment has been used in placing it.\textsuperscript{73} This aspect of his theory has failed to receive the attention

it deserves. It is the complement to prudent investment that gives his theory in its entirety the character of a justly balanced and co-ordinated whole. It is a phase that is not likely to appeal strongly to partisan advocates of the public interest at all costs. It is unfortunate that his opinion contains no indication of how the rate of return is to be fixed on capital raised by the sale of stock or derived from the reinvestment of earnings. A distinction might reasonably be made in this matter depending on whether the investment was made voluntarily or under public compulsion. It does not seem unreasonable to apply to the former the prevailing market rate for public utility capital at the time the question arises. If resort is had to the rate in non-public utility fields the rate adopted should reflect both the difference in security and the disadvantage to which public utility capital is subject through restrictions on its right to withdraw which assimilates its status somewhat to capital invested under compulsion. The position of new investments made under compulsion is somewhat different. It would seem reasonable to permit the rate prevailing at the time the investment is made to apply for a reasonable period thereafter whatever the trend of the rate during that period. It is recognized that, if the original rate is fixed at the then prevailing market rate, an advantage is conferred upon such capital and its security enhanced. These are, however, obtained by sacrificing the possible gains from increasing rates. This proposed adjustment is reasonable considering the circumstances under which such capital is invested. It is even fairer as applied to the reinvestment of earnings, particularly when that method is the only practicable one available. The case then bears a close resemblance to forced loans by the stockholder, and the principles of capital cost developed by Justice Brandeis for borrowed capital may reasonably be applied.

There are certain phases of regulation affecting income that should be mentioned. The public may conceivably compel improvements involving a considerable scrapping of existing plant. The mutual equities thus affected might be adjusted through the rate of return, but a more certain technique would be desirable. The purpose of such regulations is to secure for the public the benefits of technical advances. Although this is a risk which under competition would be borne by the producer, the consumer would tend to pay for it. There is no reason why the public should not bear the cost in the case of public utilities. The investment in the
scrapped plant should be amortized during the succeeding
years.\textsuperscript{74}

The problem of the rate base cannot, therefore, be dissociated
from that of the rate of return and others incident to regulation.
Prudent investment furnishes on the whole the most satisfactory
answer to what experience has proved the most difficult of the
problems price regulation has raised. It is, however, a mistake to
defend it without a recognition of its implications for evolving
reasonable principles for other phases of regulation. All these
constitute the complementary parts of a single and unified scheme
of control, and the governing principles of each should reflect that
fact. It is beyond the purview of the present article to indicate
in what items of detail existing rules will require modification.
\textit{It is sufficient to state that the adoption of prudent investment
furnishes the basis on which it should be done and new principles
evolved as regulation develops. It is not quite exact, however,
that the theory gives a rate base that “would be ascertained as
a fact, not determined as matter of opinion.”\textsuperscript{75} \textsuperscript{76}\textsuperscript{7}
The determination
of whether an investment is prudent or imprudent may in many
cases involve judgment and opinion.\textsuperscript{78} Fixing the capital costs to
be allowed on borrowed capital requires an appraisal of methods
and terms of financing necessarily leaving a considerable
scope for opinion. The justification of Justice Brandeis’ theory
is not that it has eliminated the necessity for judgment and opin-
ion, but that it has reduced the opportunity therefor. There are
questions that have arisen in rate-fixing whose answers are in no
way facilitated by the adoption of prudent investment. It will
still be as difficult as ever to determine when a particular class
of traffic should pay its own way and when it has done so.\textsuperscript{77} The
constitutional limits of rate control have not been completely
definitized, but prudent investment would give greater certainty
than hitherto obtainable. Caution must be observed lest a new
“illusion of certainty” obstruct the intelligent formulation of fur-

\textsuperscript{\textcopyright See in this connection Kansas City, So. Ry. Co. v. United States,
(1913) 231 U. S. 423, 451, 58 L. Ed. 296, 34 S. C. R. 125. Such treatment
has been applied to operating deficits resulting from rates prescribed by
the public; Louisiana Water Co. v. Public Service Commission of Mo.,
(1923) 294 Fed. 954.

\textsuperscript{\textcopyright S. W. Bell Tel. Co. v. P. S. C. of Mo., (1923) 262 U. S. 276, 306,
67 L. Ed. 981, 43 S. C. R. 544.

\textsuperscript{\textcopyright For Justice Brandeis’ definition of “prudent investment” see footnote
1 to his opinion in the S. W. Bell Tel. Co. case, (1923) 262 U. S. 276, 67
L. Ed. 981, 43 S. C. R. 544.

\textsuperscript{\textcopyright See cases cited in footnote (32).
ther principles for meeting the constitutional issues involved in price fixing.

The preceding discussion has frankly appealed to considerations of expediency and policy. This is unavoidable in dealing with this type of constitutional issue. Objections to price-fixing have largely centered about the due process clause. There are legislative acts, in all respects formally correct, that are yet not due process of law. It is impossible to ascertain what legislative acts are not such unless the due process clause be given an intelligent construction. It acquires concrete meaning only if considered as a generalized statement of a broad policy. It does, despite opposite views sometimes entertained, give individualism a certain measure of constitutional protection. It does not, however, confer an eternal lease of life on any of its particular historical expressions, nor interpose a complete bar to the realization of other ends. It invites an evaluation of competing and conflicting ends, and this is impossible without resort to considerations of policy. If any further justification is required, it is found in the practice of the courts in dealing with this very problem.78

A brief recapitulation is necessary. Our society is in general committed to the theory of competition as the regulative agency of economic activities, and individual initiative as its motive force. These function in a legal order whose conceptions of property and contract are molded by their influence. Authoritative price fixing, and our present schemes of regulation, have in substance effected so distinct a classification of economic capital that competitive standards of economic justice have become inadequate for measuring it in the case of public utility property. Practical considerations alone demand a fair substitute evolved by a process of give and take. The problem is to develop principles for determining the income which public utilities shall be afforded an opportunity to earn. This can proceed rationally only by taking account of the different elements of the problem and their interrelations. The factor that has received most extensive judicial consideration is the rate base. Three decades of litigation have produced only uncertainty and confusion from which the prudent investment theory offers a partial escape. Its adoption should be accompanied by the acceptance of the prudent capital cost theory, and may entail a readjustment of principles affecting other problems of regulation. It is by no means a solution of the entire problem, but represents

78See pp. 226 ff.
a fair basis for evolving a set of principles that should put the matter in a more satisfactory condition than that thus far attained.\textsuperscript{70}

\textsuperscript{70}For views either favoring reproduction cost, or opposed to prudent investment, see Frederic G. Dorety, The Function of Reproduction Cost in Public Utility Valuation and Rate Making, 37 Harv. L. Rev. 173; H. B. Brown, op. cit.; Leslie Craven, Railroad Valuation: A Statement of the Problem, 9 Am. Bar Association Jour. 681. For a suggestion as to the inapplicability of prudent investment in certain businesses, see Nathan Matthews, The Effect of the Recent Decisions of the Supreme Court on Reproduction Cost as a Test of Value, 37 Harv. L. Rev. 431.