der federal control; his power to enter appearance by counsel without prior service of process; and whether in the same proceeding he may take different and antagonistic positions, first as the agent of one railroad system and then of another.

We cannot say the court below was clearly without jurisdiction to determine all the points presented. Moreover, by appeal in the ordinary way possible errors can be corrected; and there is no imperative reason for awarding a writ of prohibition. *Ex parte Gordon,* 104 U. S. 515; *Ex parte Pennsylvania,* 109 U. S. 174; *In re Cooper,* 143 U. S. 472, 495; *In re Morrison,* 147 U. S. 14; *In re New York & Porto Rico S. S. Co.,* 155 U. S. 523; *Ex parte Chicago, Rock Island & Pacific Ry. Co.,* 255 U. S. 273, 275, 280.

The rule to show cause is discharged and the prayer of the petition is denied.

Rule discharged.

STATE OF MISSOURI EX REL. SOUTHWESTERN BELL TELEPHONE COMPANY *v.* PUBLIC SERVICE COMMISSION OF MISSOURI, ET AL.

ERROR TO THE SUPREME COURT OF THE STATE OF MISSOURI.

No. 158. Argued December 8, 1922.—Decided May 21, 1923.

1. Rates fixed by state authority for a public utility corporation must be such as will yield a fair return upon the value of its property devoted to the public service. P. 287.
2. What will amount to a fair return cannot be ascertained by valuing the property as of past times without giving consideration to greatly increased costs of labor, supplies, etc., prevailing at the time of the investigation. *Id.*
3. An honest and intelligent forecast of probable future values is also essential, and this cannot be made if the highly important element of present costs be wholly disregarded. *Id.*
4. Rates admitting of a possible return of but 5½%, in net profits after allowing for depreciation, on the minimum value of the prop-

erty of a telephone company, *held* wholly inadequate, considering the character of the investment and the interest rates then prevailing. P. 288.

5. A state commission, in fixing the rates of a public utility corporation, cannot substitute its judgment for the honest discretion of the company's board of directors respecting the necessity and reasonableness of expenditures made in the operations of the company. *Id.*

233 S. W. 425, reversed.

ERROR to a judgment of the Supreme Court of Missouri affirming a judgment of the State Circuit Court, which sustained an order by which the Public Service Commission undertook to reduce the rates of the above-named telephone company and to abolish installation and moving charges.

Mr. Frederick W. Lehmann, with whom *Mr. J. W. Gleed, Mr. Thos. O. Stokes, Mr. Claude Nowlin* and *Mr. E. W. Clausen* were on the briefs, for plaintiff in error.

The value of the property found by the Commission was not its present value, but was its actual cost, or its value in 1913, plus net additions since, its present value being ignored, the value found being far below the present value of the property, with the result that the rates prescribed were confiscatory in their effect and operation. §§ 10511, 10502, R. S. Mo. 1919; *Willcox* v. *Consolidated Gas Co.,* 212 U. S. 19; *Minnesota Rate Cases,* 230 U. S. 352; *Lincoln Gas Co.* v. *Lincoln,* 250 U. S. 256; *City Light & Traction Co. of Sedalia,* 8 Mo. P. S. C. 204; *Hurst* v. *Chicago, Burlington & Quincy Ry. Co.,* 280 Mo. 566; *Elizabethtown Gas Co.* v. *Public Utility Commissioners,* 95 N. J. L. 18.

Valuation, though described as tentative, must be as of the date of determination, and rates prescribed, though designated as temporary, must be just and reasonable. §§ 10502, 10511, R. S. Mo. 1919; *Columbia Tel. Co.* v. *Atkinson,* 271 Mo. 28; *Galveston Electric Co.* v. *Galves-*

ton, 258 U. S. 388; *New York Tel. Co.* v. *Prendergast,* U. S. D. C., So. D. N. Y., May 26, 1922; *Potomac Electric Power Co.* v. *Public Utilities Comm.,* 276 Fed. 327.

The findings of the Commission as to the value of the property were made under a mistake of law, are entirely without support in the evidence, and are against the evidence of indisputable character in the case. The rates prescribed by the Commission are therefore without legal effect and void. §§ 10502, 10511 (2), R. S. Mo. 1919; *State Public Utilities Comm.* v. *Toledo, etc., Ry. Co.,* 286 Ill. 582; *Springfield* v. *Springfield Gas Co.,* 291 Ill. 209; *State* v. *Great Northern Ry. Co.,* 135 Minn. 19; *Interstate Commerce Comm.* v. *Union Pacific R. R. Co.,* 222 U. S. 541; *Interstate Commerce Comm.* v. *Louisville & Nashville R. R. Co.,* 227 U. S. 88.

The Commission's calculation of expenses was far below what was actually and necessarily incurred in the operation of the property and resulted in a showing of net earnings far beyond what was realized, and, the reduced rates being predicated on such showing, there was a taking and appropriation of the Company's property without due process of law and a denial of the equal protection of the law.

The annual charge for depreciation is estimated by the Commission upon an undervaluation of the property and is entirely inadequate.

Increase in wages made in July and August, 1919, were not taken into full account by the Commission.

The four and one-half per cent payment under the license contract with the American Telephone & Telegraph Company is a legitimate item of expense. *Houston* v. *Southwestern Bell Tel. Co.,* 259 U. S. 318; *Chesapeake & Potomac Tel. Co.* v. *Manning,* 186 U. S. 239; *Interstate Commerce Comm.* v. *Chicago Great Western Ry. Co.,* 209 U. S. 108; *Chicago, Milwaukee & St. Paul Ry. Co.* v. *Wisconsin,* 238 U. S. 491; *People ex rel.* v.

Stevens, 197 N. Y. 1; *Bacon* v. *Boston & Maine R. R.,* 83 Vt. 421; *Atlantic Coast Line R. R. Co.* v. *North Carolina,* 206 U. S. 1; *Springfield* v. *Springfield Gas & Electric Co.,* 291 Ill. 209.

Charges for installation, moving, etc., were wrongfully disallowed. § 10218, R. S. Mo. 1919; *Interstate Commerce Comm.* v. *Chicago Great Western Ry. Co.,* 209 U. S. 108; *Smyth* v. *Ames,* 169 U. S. 466; *Interstate Commerce Comm.* v. *Stickney,* 215 U. S. 98.

No question as to division of rates on long distance messages is involved in this suit. *Houston* v. *Southwestern Bell Tel. Co.,* 259 U. S. 318.

The Commission's allowance of 6.81 per cent per annum for return, surplus and contingencies on the tentative value of $20,400,000 did not permit a fair return on the property used in the service.

Mr. L. H. Breuer and *Mr. James D. Lindsay* for defendants in error.

The Supreme Court of Missouri gave to the findings of the Commission no more weight than that of a presumption of right action, and asserted and exercised the right to review the evidence for itself, and to make its own findings of fact, unhampered by the findings of the Commission. § 10522, R. S. Mo. 1919; *Chicago, Burlington & Quincy R. R. Co.* v. *Public Service Comm.,* 266 Mo. 333; *Lusk* v. *Atkinson,* 271 Mo. 155; *Ozark P. & W. Co.* v. *Commission,* 287 Mo. 522.

Upon writ of error to the highest court of the State, this Court will not review the evidence further than to ascertain that the finding of facts by the state court, upon which depends the asserted constitutional right in issue, is supported by substantial evidence. *Northern Pacific Ry. Co.* v. *North Dakota,* 236 U. S. 585; *Truax* v. *Corrigan,* 257 U. S. 312; *Cedar Rapids Gas Light Co.* v. *Cedar Rapids,* 223 U. S. 655; *Ohio Valley Water Co.* v. *Ben Avon*

Borough, 253 U. S. 287; *Interstate Commerce Comm.* v. *Union Pacific R. R. Co.,* 222 U. S. 541.

The Supreme Court of Missouri found, upon a review of the evidence, that the rates established by the Commission were not confiscatory, nor unreasonable, and that the rates were calculated upon the basis of the fair value of the property of the company, being used and useful in the service of the public. These findings of fact are supported by substantial evidence, are not arbitrary nor capricious, and will not be set aside by this Court upon writ of error. *San Diego Land & Town Co.* v. *Jasper,* 189 U. S. 439; *Louisiana R. R. Comm.* v. *Cumberland Tel. Co.,* 212 U. S. 414; *Portland Ry. Light & Power Co.* v. *Oregon R. R. Comm.,* 229 U. S. 397; *Darnell* v. *Edwards,* 244 U. S. 564; *New York & Queens Gas Co.* v. *McCall,* 245 U. S. 545.

The decision of the highest court of the State, upon a review of all the evidence, sustaining the orders of an administrative commission, which are temporary in effect and duration, and which expressly give to the complainant the right at any time thereafter, without prejudice, to reopen the issues involved, should not be set aside upon review on writ of error, solely because the Court may differ in its view as to where lies the greater weight of the evidence, or the more expedient solution of the administrative issues involved. *Cedar Rapids Gas Light Co.* v. *Cedar Rapids,* 223 U. S. 655; *Galveston Electric Co.* v. *Galveston,* 258 U. S. 388; *Knoxville* v. *Knoxville Water Co.,* 212 U. S. 1; *Willcox* v. *Consolidated Gas Co.,* 212 U. S. 19; *Houston* v. *Southwestern Bell Tel. Co.,* 259 U. S. 318.

There is no constitutional or inherent right in the utility company, on the one hand, or, in the public, on the other, which imperatively demands that the fair value of property devoted to a public service, shall be determined upon estimated cost of reproduction new, either in a time of

abnormally high prices, or in a time of abnormally low prices; and a finding made in view of the various tests of value, supported by substantial evidence, and approved upon judicial review by the highest court of a State, should not be set aside because the state commission and the state court did not approve a valuation made at prices prevailing in an abnormal period; and particularly so, when the findings are tentative, and the rates temporary, and a reopening of the issues is expressly permitted. *Smyth* v. *Ames,* 169 U. S. 466; *Minnesota Rate Cases,* 230 U. S. 351; *Brooklyn Borough Gas Co.* v. *Public Service Comm.,* P. U. R. 1918 F, 335.

A net return of 6.81 per cent is not confiscatory, nor unreasonable; and particularly so, under an order tentative and temporary in character and duration. Federal Control Act, as amended, 40 Stat. 451, §§ 1, 16; Interstate Commerce Act, § 15–a, added by Transportation Act 1920, 41 Stat. 488; *Willcox* v. *Consolidated Gas Co.,* 212 U. S. 19; *Denver* v. *Denver Union Water Co.,* 246 U. S. 178; *Lincoln Gas Co.* v. *Lincoln,* 250 U. S. 256.

The disallowance of installation and moving charges is not reversible error, the revenue from other sources not being unreasonably low.

The allowance of such charges was not mandatory upon the Commission. Their allowance or disallowance is a question of expediency or policy of regulation, and not of power, or of undue interference with the management of the property. *Baltimore & Ohio R. R. Co.* v. *Pitcairn Coal Co.,* 215 U. S. 481; *Minneapolis & St. Louis R. R. Co.* v. *Minnesota,* 193 U. S. 53; *Oregon R. R. & Nav. Co.* v. *Fairchild,* 224 U. S. 510.

MR. JUSTICE MCREYNOLDS delivered the opinion of the Court.

The Supreme Court of Missouri (233 S. W. 425) affirmed a judgment of the Cole County Circuit Court

which sustained an order of the Public Service Commission of Missouri, effective December 1, 1919. That order undertook to reduce rates for exchange service and to abolish the installation and moving charges theretofore demanded by plaintiff in error. It is challenged as confiscatory and in conflict with the Fourteenth Amendment.

During the period of federal control—August 1, 1918, to August 1, 1919—the Postmaster General advanced the rates for telephone service and prescribed a schedule of charges for installing and moving instruments. The Act of Congress approved July 11, 1919, c. 10, 41 Stat. 157, directed that the lines be returned to their owners at midnight July 31, 1919, and further—

"That the existing toll and exchange telephone rates as established or approved by the Postmaster General on or prior to June 6, 1919, shall continue in force for a period not to exceed four months after this Act takes effect, unless sooner modified or changed by the public authorities—State, municipal, or otherwise—having control or jurisdiction of tolls, charges, and rates or by contract or by voluntary reduction."

August 4, 1919, the Commission directed plaintiff in error to show why exchange service rates and charges for installation and moving as fixed by the Postmaster General should be continued. After a hearing, it made an elaborate report and directed that the service rates should be reduced and the charges discontinued.

The Company produced voluminous evidence, including its books, to establish the value of its property dedicated to public use. The books showed that the actual cost of "total plant, supplies, equipment and working capital," amounted to $22,888,943. Its engineers estimated the reproduction cost new as of June 30, 1919, thus—Physical telephone property, $28,454,488; working capital, $1,051,564; establishing business, $5,594,816; total $35,100,868. They also estimated existing values

(after allowing depreciation) upon the same date—Physical telephone property, $24,709,295; working capital, $1,051,564; establishing business, $5,594,816; total, $31,355,675.

The only evidence offered in opposition to values claimed by the Company, were appraisals of its property at St. Louis, Caruthersville and Springfield, respectively, as of December 1913, February 1914 and September 1916, prepared by the Commission's engineers and accountants, together with statements showing actual cost of additions subsequent to those dates.

Omitting a paragraph relative to an unimportant reduction—$17,513.52—from working capital account, that part of the Commission's report which deals with property values follows.

"The Company offered in evidence exhibits showing the value of its property in the entire State (outside the cities of Kansas City and Independence, whose rates are not involved in this case), and also at forty-six of its local exchanges in the State. It shows by such exhibits that the value of the property in the entire State (and when speaking of the property in the State in this report we mean exclusive of Kansas City and Independence) is as follows: Reproduction cost new, $35,100,471; reproduction cost new, less depreciation, $31,355,278; and cost as per books, $22,888,943. It also shows the Company's estimate of reproduction cost new, reproduction cost new less depreciation, and the prorated book cost, at each of the forty-six local exchanges mentioned.

"The engineers of this Commission have made a detailed inventory and appraisal and this Commission has formally valued the Company's property at only three of its exchanges, viz: at the City of Caruthersville, reported in re Southwestern Tel. & Tel. Company, 2 Mo. P. S. C. 492; at the City of St. Louis in cases No. 234 and No. 235 as yet unreported; and at the City of Springfield, reported

in re Missouri and Kansas Telephone Company, 6 Mo. P. S. C. 279, and as a result we have only the estimates and appraisals of the Company before us in relation to the value of the property at the other exchanges. We think it is clear, however, from the data at hand that the values placed by the Company upon the property are excessive and not a just basis for rate making.

"The values fixed by this Commission at Caruthersville, St. Louis and Springfield in the cases above mentioned aggregate $11,003,898, while the Company estimates the aggregate cost of reproduction new of these plants in this case at $18,971,011. The ratio of the latter figure is 172.4 per cent. This percentage divided into $35,100,471, the Company's estimate of the aggregate cost of reproduction new of its property in Missouri in this case, equals $20,350,000, which might be said to be one measure of the value of the property.

"Again, the Company's estimate of the aggregate cost of reproduction new, less depreciation, of its properties at Caruthersville, St. Louis and Springfield, in this case is $16,913,673. The ratio of this figure to the aggregate value fixed by the Commission at these exchanges, plus additions reported by the Company, is 153.7 per cent. This percentage divided into $31,355,278, the Company's estimate of the aggregate cost of reproduction new, less depreciation, of its property in Missouri in this case, equals $20,400,000, which may be said to be another measure of the value of the property.

"The Company also shows by Exhibits 19 and 212 that its return under the Postmaster General's rates on $22,888,943, the book value of its property in the State, is at the rate of 11.65 per cent per annum for depreciation and return on the investment, which would yield the Company 6 per cent for depreciation and 5.65 per cent for return on the book cost of the property. As stated, however, we do not think that the book cost or the

'prorated book cost' of the property as claimed by the Company would be a fair basis for rate making.

"As we understand it, the 'prorated book cost' given in evidence by the Company for the various exchanges is simply the percentage relation of reproduction cost new which the original cost of all property bears to reproduction cost new of all property and in individual instances the actual cost might vary greatly, either up or down, from what an appraisal would show. If the Company, to eliminate competition, paid a price in excess of the value or because of discouraged local operation were enabled to purchase a plant far below its actual value, the 'prorated book cost' basis would not reflect anything like the original cost.

"We also think that the figure of $22,888,943, claimed by the Company to represent the book cost or original cost of its property in the State, is subject to certain adjustments with reference to the amount of non-useful property included, working capital, and the amount to be deducted account extinguished value recouped from patrons by charges to depreciation.

"In the St. Louis case, supra, the original cost of the non-useful property deducted and disallowed by the Commission amounted to $454,689.16. It appears from the Company's Exhibit 256 that the 'prorated book cost' of the St. Louis exchange is just about half of that given for the State. However, it is clear that the proportion of non-used and non-useful property in St. Louis bears a much larger percentage relation to useful property than would obtain throughout the State. It would appear that estimating the Company's property not used and useful for the entire State at $500,000 would be a fair approximation. This sum at least should be deducted. . . .

"The depreciation reserve applicable to the Missouri property is not shown by the Company. However, on

the Company's Exhibit 15, the balance sheet as of June 30, 1919, of the Southwestern Bell Telephone Company (Missouri corporation) operating in Missouri, Kansas and Arkansas, the reserve for accrued depreciation and reserve for amortization of intangibles is given as $7,963,082.37. The same exhibit shows the original cost of fixed capital for Missouri, Kansas and Arkansas property as $46,061,162.76. The total fixed capital of the Missouri property shown on the Company's Exhibit 19 is $21,837,759, which is 47.4 per cent of $46,061,162.76 and 47.4 per cent of the reserve for depreciation, $7,963,082.37 equals $3,774,501, or the portion assignable to the Missouri property.

"Adjusting in accordance with the above, we have: Total plant and equipment, including working capital, as per Company's Exhibit No. 19, $22,888,943. Deduct property not used or useful, $500,000.00; deduct excess working capital, $17,513.52; deduct depreciation reserve, $3,774,501.00; [total to be deducted] $4,292,014.52. [Net total] $18,596,928.48; add for intangibles, 10 per cent, $1,859,692.85; total adjusted original cost, $20,-456,621.33.

"After carefully considering all the evidence as to values before us in this case, we are of the opinion that the value of the Company's property in the State, exclusive of Kansas City and Independence, devoted to exchange service, will not exceed the sum of $20,400,000, and we will tentatively adopt this sum as the value of the property for the purposes of this case. As stated supra, this Commission has formally valued only a part of this property, and we should not be understood as authoritatively fixing the value of the property at this time."

The three earlier valuations to which the Commission referred are—St. Louis, December 1913, $8,500,000; Caruthersville, February 1914, $25,000; Springfield, Sep-

tember 1916, $815,000; total, $9,340,000. Between those dates and June 30, 1919, additions were made to these properties which cost, respectively, $1,623,765, $5,992 and $34,141. Adding these to the original valuations gives $11,003,898, the base sum used by the Commission for the estimates now under consideration.

Obviously, the Commission undertook to value the property without according any weight to the greatly enhanced costs of material, labor, supplies, etc., over those prevailing in 1913, 1914 and 1916. As matter of common knowledge, these increases were large. Competent witnesses estimated them as 45 to 50 per centum.

In *Willcox* v. *Consolidated Gas Co.,* 212 U. S. 19, 41, 52, this Court said:

"There must be a fair return upon the reasonable value of the property at the time it is being used for the public. . . . And we concur with the court below in holding that the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property, which legally enters into the consideration of the question of rates, has increased in value since it was acquired, the company is entitled to the benefit of such increase."

In the *Minnesota Rate Cases,* 230 U. S. 352, 454, this was said:

"The making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law."

See also *Denver* v. *Denver Union Water Co.,* 246 U. S. 178, 191; *Newton* v. *Consolidated Gas Co.,* 258 U. S. 165 (March 6, 1922); and *Galveston Electric Co.* v. *Galveston,* 258 U. S. 388 (April 10, 1922).

It is impossible to ascertain what will amount to a fair return upon properties devoted to public service with-

out giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for to-morrow cannot ignore prices of to-day.

Witnesses for the Company asserted—and there was no substantial evidence to the contrary—that excluding cost of establishing the business the property was worth at least 25% more than the Commission's estimates, and we think the proof shows that for the purposes of the present case the valuation should be at least $25,000,000.

After disallowing an actual expenditure of $174,048.60 for rentals and services by the American Telephone & Telegraph Company and some other items not presently important, the Commission estimated the annual net profits on operations available for depreciation and return as $2,828,617.60—approximately 11⅓% of $25,000,000. That 6% should be allowed for depreciation appears to be accepted by the Commission. Deducting this would leave a possible 5⅓% return upon the minimum value of the property, which is wholly inadequate considering the character of the investment and interest rates then prevailing.

The important item of expense disallowed by the Commission—$174,048.60—is 55% of the 4½% of gross revenues paid by plaintiff in error to the American Telephone & Telegraph Company as rents for receivers, transmitters, induction coils, etc., and for licenses and services under the customary form of contract between the latter Company and its subsidiaries. Four and one-half per cent. is the ordinary charge paid voluntarily by local companies of the general system. There is nothing to indicate bad faith. So far as appears, plaintiff in error's board of directors has exercised a proper discretion about this matter

requiring business judgment. It must never be forgotten that while the State may regulate with a view to enforcing reasonable rates and charges, it is not the owner of the property of public utility companies and is not clothed with the general power of management incident to ownership. The applicable general rule is well expressed in *State Public Utilities Commission ex rel. Springfield* v. *Springfield Gas and Electric Company,* 291 Ill. 209, 234.

"The commission is not the financial manager of the corporation and it is not empowered to substitute its judgment for that of the directors of the corporation; nor can it ignore items charged by the utility as operating expenses unless there is an abuse of discretion in that regard by the corporate officers."

See *Interstate Commerce Commission* v. *Chicago Great Western Ry. Co.,* 209 U. S. 108; *Chicago, Milwaukee & St. Paul R. R. Co.* v. *Wisconsin,* 238 U. S. 491; *People ex rel.* v. *Stevens,* 197 N. Y. 1.

Reversed.

MR. JUSTICE BRANDEIS dissenting from opinion, with whom MR. JUSTICE HOLMES concurs.

I concur in the judgment of reversal. But I do so on the ground that the order of the state commission prevents the utility from earning a fair return on the amount prudently [1] invested in it. Thus, I differ fundamentally from my brethren concerning the rule to be applied in determining whether a prescribed rate is confiscatory. The Court, adhering to the so-called rule of *Smyth* v. *Ames,*

[1] The term prudent investment is not used in a critical sense. There should not be excluded from the finding of the base, investments which, under ordinary circumstances, would be deemed reasonable. The term is applied for the purpose of excluding what might be found to be dishonest or obviously wasteful or imprudent expenditures. Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown.

169 U. S. 466, and further defining it, declares that what is termed value must be ascertained by giving weight, among other things, to estimates of what it would cost to reproduce the property at the time of the rate hearing.

The so-called rule of *Smyth* v. *Ames* is, in my opinion, legally and economically unsound. The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. Upon the capital so invested the Federal Constitution guarantees to the utility the opportunity to earn a fair return.[2] Thus, it sets the limit to the power of the State to regulate rates. The Constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or of any of them. The several items of property constituting the utility, taken singly, and freed from the public use, may conceivably have an aggregate value greater than if the items are used in combination. The owner is at liberty, in the absence of controlling statutory provision, to withdraw his property from the public service; and, if he does so, may obtain for it exchange value. Compare *Brooks-Scanlon Co.* v. *Railroad Commission of Louisiana,* 251 U. S. 396; *Erie R. R. Co.* v. *Public Utility Commissioners,* 254 U. S. 394, 411; *Texas* v. *Eastern Texas R. R. Co.,* 258 U. S. 204. But so long as the specific items of property are employed by the utility, their exchange value is not of legal significance.

The investor agrees, by embarking capital in a utility, that its charges to the public shall be reasonable.

[2] Except that rates may, in no event, be prohibitive, exorbitant, or unduly burdensome to the public. *Covington & Lexington Turnpike Road Co.* v. *Sandford,* 164 U. S. 578, 596; *Smyth* v. *Ames,* 169 U. S. 466, 544; *San Diego Land & Town Co.* v. *National City,* 174 U. S. 739, 757; *Minnesota Rate Cases,* 230 U. S. 352, 454; Mr. Justice Miller in *Chicago, Milwaukee & St. Paul Ry. Co.* v. *Minnesota,* 134 U. S. 418, 459.

His company is the substitute for the State in the performance of the public service; thus becoming a public servant. The compensation which the Constitution guarantees an opportunity to earn is the reasonable cost of conducting the business. Cost includes not only operating expenses, but also capital charges. Capital charges cover the allowance, by way of interest, for the use of the capital, whatever the nature of the security issued therefor; the allowance for risk incurred; and enough more to attract capital. The reasonable rate to be prescribed by a commission may allow an efficiently managed utility much more. But a rate is constitutionally compensatory, if it allows to the utility the opportunity to earn the cost of the service as thus defined.

To decide whether a proposed rate is confiscatory, the tribunal must determine both what sum would be earned under it, and whether that sum would be a fair return. The decision involves ordinarily the making of four subsidiary ones:

1. What the gross earnings from operating the utility under the rate in controversy would be. (A prediction.)

2. What the operating expenses and charges, while so operating, would be. (A prediction.)

3. The rate-base, that is, what the amount is on which a return should be earned. (Under *Smyth* v. *Ames*, an opinion, largely.)

4. What rate of return should be deemed fair. (An opinion, largely.)

A decision that a rate is confiscatory (or compensatory) is thus the resultant of four subsidiary determinations. Each of the four involves forming a judgment, as distinguished from ascertaining facts. And as to each factor, there is usually room for difference in judgment. But the first two factors do not ordinarily present serious difficulties. The doubts and uncertainties incident to

prophecy, which affect them, can, often, be resolved by a test period; and meanwhile protection may be afforded by giving a bond. *Knoxville* v. *Knoxville Water Co.*, 212 U. S. 1, 18, 19; *St. Louis, Iron Mountain & Southern Ry. Co.* v. *McKnight,* 244 U. S. 368. The doubts and uncertainties incident to the last two factors can be eliminated, or lessened, only by redefining the rate base, called value, and the measure of fairness in return, now applied under the rule of *Smyth* v. *Ames.* The experience of the twenty-five years since that case was decided has demonstrated that the rule there enunciated is delusive. In the attempt to apply it insuperable obstacles have been encountered. It has failed to afford adequate protection either to capital or to the public. It leaves open the door to grave injustice. To give to capital embarked in public utilities the protection guaranteed by the Constitution, and to secure for the public reasonable rates, it is essential that the rate base be definite, stable, and readily ascertainable; and that the percentage to be earned on the rate base be measured by the cost, or charge, of the capital employed in the enterprise. It is consistent with the Federal Constitution for this Court now to lay down a rule which will establish such a rate base and such a measure of the rate of return deemed fair. In my opinion, it should do so.

The rule of *Smyth* v. *Ames* sets the laborious and baffling task of finding the present value of the utility. It is impossible to find an exchange value for a utility, since utilities, unlike merchandise or land, are not commonly bought and sold in the market. Nor can the present value of the utility be determined by capitalizing its net earnings, since the earnings are determined, in large measure, by the rate which the company will be permitted to charge; and, thus, the vicious circle would be encountered. So, under the rule of *Smyth* v. *Ames,* it is usually sought to prove the present value of a utility by ascer-

taining what it actually cost to construct and instal it; or by estimating what it should have cost; or by estimating what it would cost to reproduce, or to replace, it. To this end an enumeration is made of the component elements of the utility, tangible, and intangible.[3] Then the actual, or the proper, cost of producing, or of reproducing, each part is sought. And finally, it is estimated how much less than the new each part, or the whole, is

[3] In estimating replacement cost the first step is to determine what part of the property owned is used and useful in the public service. That involves, among other things, a consideration of retired or discarded property and the question whether the size and capacity of the plant are, in part, excessive.

The property included in the valuation is commonly treated under the following heads (See Report of Special Committee on Valuation, Amer. Society of Civil Engineers, October 28, 1916, Vol. 42 Proceedings, pp. 1708–1938):

A. Tangibles:
- (a) Land and buildings.
- (b) Plant.

B. Incidentals during construction:
- (a) Administration.
- (b) Engineering and superintendence.
- (c) Legal expenses.
- (d) Brokerage.
- (e) Promotion fees.
- (f) Insurance.
- (g) Taxes.
- (h) Bond discount.
- (i) Contingencies.

C. Intangibles:
- (a) Good will.
- (b) Franchise value.
- (c) Going concern value.
- (d) Working capital.

"Going value" was declared by the Special Report (p. 1727) to embrace, among other things, "efficiency, favorable business arrangements and design"; intangibles to include also "leases, easements, water rights, traffic and operating agreements, strategic location and advantages and other privileges."

worth. That is, the depreciation is estimated.[4] Obviously each step in the process of estimating the cost of reproduction, or replacement, involves forming an opinion, or exercising judgment, as distinguished from merely ascertaining facts. And this is true, also, of each step in the process of estimating how much less the existing plant is worth, than if it were new. There is another potent reason why, under the rule of *Smyth* v. *Ames*, the room for difference in opinion as to the present value of a utility is so wide. The rule does not measure the present value either by what the utility cost to produce; or by what it should have cost; or by what it would cost to reproduce, or to replace, it.[5] Under that rule the tribunal is directed, in forming its judgment, to take into consideration all those and also, other elements, called relevant facts.[6]

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[4] Several different methods are used for measuring depreciation: (1) The replacement method; (2) the straight-line method; (3) the compound interest method; (4) the sinking fund method; (5) the unit cost method. It is largely a matter of judgment whether, and to what extent, any one of these several methods of measuring depreciation should be applied. They may give widely different results. Special Report, October 28, 1916, Valuation of Public Utilities, Amer. Society of Civil Engineers, Vol. 42 Proceedings, pp. 1723–1727; 1846–1900.

[5] This Court declared in *Smyth* v. *Ames*, 169 U. S. 466, 547, that "present as compared with original cost of construction" is to be considered; and in *Minnesota Rate Cases*, 230 U. S. 352, 452, that "the cost-of-reproduction method is of service in ascertaining the present value of the plant, when it is reasonably applied and when the cost of reproducing the property may be ascertained with a proper degree of certainty." Reproduction cost was thus held to be evidence of value. But it has never been held to be the measure of value.

[6] Some of these so-called relevant facts are, as the rule has been applied:

(a) Capitalization, i. e., bonds, stock, and other securities outstanding.

(b) Book cost, i. e., the investment account as shown on the books.

Obviously "value" cannot be a composite of all these elements. Nor can it be arrived at on all these bases. They are very different; and must, when applied in a particular case, lead to widely different results. The rule of *Smyth* v. *Ames,* as interpreted and applied, means merely that all must be considered. What, if any, weight shall be given to any one, must practically rest in the judicial discretion of the tribunal which makes the deter-

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(c) Actual cost, i. e., amounts actually paid in cash for installing the original plant and business, and the additions thereto.

(d) Historical cost, i. e., the proper cost of the existing plant and business, estimated on the basis of the price levels existing at the respective dates when the plant and the additions were constructed. This is often called prudent investment. Historical cost would, under normal conditions, be equal in amount to the original cost. The phrases are sometimes used to denote the same thing. But they are not the same; and they are often ascertained by different processes. Original cost is the amount actually paid to establish the utility. The amount is ascertained, where possible, by inspection of books and vouchers, and by other direct evidence. If this class of evidence is not complete, it may be necessary to supplement it by evidence as to what was probably paid for some items, by showing prices prevailing for work and materials at the time the same were supplied. But the evidence of these prices is merely circumstantial, or corroborative, evidence of the amount actually paid. In determining actual cost, whatever the evidence, there is no attempt to determine whether the expenditure was wise or foolish, or whether it was useful or wasteful. Historical cost, on the other hand, is the amount which normally should have been paid for all the property which is usefully devoted to the public service. It is, in effect, what is termed the prudent investment. In enterprises efficiently launched and developed, historical cost and original cost would practically coincide both in items included and in amounts paid. That is, the subjects of expenditure would coincide; and the cost at prices prevailing at the time of installation would substantially coincide with the actual cost.

(e) Reproduction cost of plant and business—estimated on price levels prevailing at the date of valuation.

(f) Reproduction cost of plant and business, estimated on average price levels prevailing during periods of, say, 5 to 10 years preceding the valuation.

mination. Whether a desired result is reached may depend upon how any one of many elements is treated. It is true that the decision is usually rested largely upon records of financial transactions, on statistics and calculations. But as stated in *Louisville* v. *Cumberland Telegraph & Telephone Co.*, 225 U. S. 430, 436, "every figure . . . that we have set down with delusive exactness" is "speculative."

The efforts of courts to control commissions' findings of value have largely failed. The reason lies in the character of the rule declared in *Smyth* v. *Ames*. The rule there stated was to be applied solely as a means of determining whether rates already prescribed by the legislature were confiscatory. It was to be applied judicially after the rate had been made; and by a court which had had no part in making the rate. When applied under such circumstances the rule, although cumbersome, may occasionally be effective in destroying an obstruction to justice, as the action of a court is, when it sets aside the verdict of a jury. But the commissions undertook to make the rule their standard for constructive action. They used it as a guide for making, or approving, rates. And the tendency developed to fix as reasonable, the rate which is not so low as to be confiscatory.[7] Thus the rule which assumes that rates of utilities will ordinarily be higher than the minimum required by the Constitution has, by the practice of the commissions, eliminated the margin between a reasonable rate and a merely compensatory rate; and, in the process of rate making, effective judicial review is very often rendered impossible.[8] The

[7] This, it appears, was the purpose of the board in *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388.

[8] A rate order will not be set aside, unless the evidence compels conviction that a fair-minded board could not have reached the conclusion that the rate would prove adequate. *San Diego Land & Town Co.* v. *National City*, 174 U. S. 739, 754; *San Diego Land & Town Co.* v. *Jasper*, 189 U. S. 439, 442; *Knoxville* v. *Knoxville Water*

result, inherent in the rule itself, is arbitrary action, on the part of the rate regulating body. For the rule not

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Co., 212 U. S. 1, 17; *Van Dyke* v. *Geary*, 244 U. S. 39, 49; *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388, 401, 402. The range for difference of opinion on each of the many factors to be taken into consideration in fixing the rate base is so wide that such compelling evidence can rarely be adduced, where the report filed recites that, after full hearing, all the so-called relevant facts were given consideration by the commission in reaching the decision made. There may often be found in opinions of utility commissions, after a lengthy and detailed discussion of a vast quantity of expert opinion, a conclusion like the following from *Re Illinois Northern Utilities Co.*, P. U. R. 1920 D, 979, 999:

"After considering all the evidence and arguments of counsel in this case, bearing upon the valuation of the properties herein involved, the investment therein, their original costs, cost to reproduce, and present values, including all overheads; preliminary costs; costs of engineering; supervision, interest, insurance, organization and legal expenses during construction; working capital; materials and supplies; and all other elements of value, tangible and intangible, and considering the plants are now going concerns in successful operation, the Commission finds . . for the purposes of this proceeding, and for those purposes only, the fair rate-making values . . as follows."

Hence, a commission's order must ordinarily be allowed to stand, unless it appears that there was some irregularity in the proceedings or that some erroneous rule of law was applied.

Since *Smyth* v. *Ames* this Court has dealt with the validity (under the Fourteenth Amendment) of rate regulation by the States in over 50 cases. In only 25 of these has the Court passed upon the question whether a rate fixed, or approved, by a state commission denied to the utility the opportunity of earning a fair return upon the fair value of the property. In none of these 25 cases has an order of a state commission, made after a full hearing, been declared void by this Court, on the ground that the finding of the rate-base, or value, was too low. In none of them has the order been declared void on the ground that the commission fixed too low a percentage of return. Lower federal courts and state courts have occasionally intervened with effect. But the instances are relatively few as compared with the number of adverse decisions of the commissions. Even where orders fixing rates have been set aside for irregularity or error, the result of the new hearing is not always advantageous to the company.

only fails to furnish any applicable standard of judgment, but directs consideration of so many elements, that almost any result may be justified.

The adoption of present value of the utility's property, as the rate base, was urged in 1893, on behalf of the community; and it was adopted by the courts, largely, as a protection against inflated claims based on what were then deemed inflated prices of the past. See argument in *Smyth* v. *Ames,* 169 U. S. 466, 479, 480; *San Diego Land & Town Co.* v. *National City,* 174 U. S. 739, 757, 758; *San Diego Land & Town Co.* v. *Jasper,* 189 U. S. 439, 442, 443; *Stanislaus County* v. *San Joaquin & Kings River Canal & Irrigation Co.,* 192 U. S. 201, 214. Reproduction cost, as the measure, or as evidence, of present value was, also, pressed then by representatives of the public who sought to justify legislative reductions of railroad rates.[9] The long depression which followed the panic of 1893 had brought prices to the lowest level reached in the Nineteenth Century. Insistence upon reproduction cost was the shippers' protest against burdens believed to have resulted from watered stocks, reckless financing, and unconscionable construction contracts. Those were the days before state legislation prohibited the issue of public utility securities without authorization from state officials; before accounting was prescribed and supervised; when outstanding bonds and stocks were hardly an indication of the amount of capital embarked in the enterprise; when depreciation accounts were unknown; and when book values, or property accounts, furnished no trustworthy evidence either of cost or of real value. Estimates of reproduction cost were then offered, largely as a means, either of supplying lacks in the proof of actual cost and investment, or of testing

[9] See *Steenerson* v. *Great Northern Ry. Co.,* 69 Minn. 353, 374; *San Diego Water Co.* v. *San Diego,* 118 Cal. 556, 568; *Metropolitan Trust Co.* v. *Houston & Texas Central R. R. Co.,* 90 Fed. 683, 687, 688.

the credibility of evidence adduced, or of showing that the cost of installation had been wasteful. For these purposes evidence of the cost of reproduction is obviously appropriate.

At first reproduction cost was welcomed by commissions as evidence of present value. Perhaps it was because the estimates then indicated values lower than the actual cost of installation. For, even after the price level had begun to rise, improved machinery and new devices tended for some years to reduce construction costs.[10] Evidence of reproduction costs was certainly welcomed, because it seemed to offer a reliable means for performing the difficult task of fixing, in obedience to *Smyth* v. *Ames*, the value of a new species of property to which the old tests—selling price or net earnings—were not applicable. The engineer spoke in figures—a language implying certitude. His estimates seemed to be free of the infirmities which had stamped as untrustworthy the opinion evidence of experts common in condemnation cases. Thus, for some time, replacement cost, on the basis of prices prevailing at the date of the valuation, was often adopted by state commissions as the standard for fixing the rate base. But gradually it came to be realized that the definiteness of the engineer's calculations was delusive; that they rested upon shifting theories; and that their estimates varied so widely as to intensify, rather than to allay doubts.[11] When the price

[10] Compare Mr. Justice Field in *Railroad Commission Cases*, 116 U. S. 307, 343, 344; *Steenerson* v. *Great Northern Ry. Co.*, 69 Minn. 353, 374.

[11] Thus in *Re Marin Municipal Water District* (Cal.) P. U. R. 1915 C, 433, 452, the several valuations of five experts were: $670,163; $723,001.85; $763,028; $919,204; $1,031,436. In *Springfield* v. *Springfield Gas & Electric Co.* (Ill.), P. U. R. 1916 C, 281, 307, the several valuations of five experts were $547,488; $588,262; $806,404; $898,785; $940,988. In *Duluth Street Ry. Co.* v. *Railroad Commission* (Wis.), P. U. R. 1915 D, 211, the valuations of two experts, both employed by the State were $600,000 and $1,100,000.

levels had risen largely, and estimates of replacement cost indicated values much greater than the actual cost of installation, many commissions refused to consider valuable what one declared to be assumptions based on things that never happened and estimates requiring the projection of the engineer's imagination into the future and methods of construction and installation that have never been and never will be adopted by sane men.[12] Finally, the great fluctuation in price levels incident to the World War led to the transfusion of the engineer's estimate of cost with the economist's prophecies concerning the future price plateaus. Then, the view that these estimates were not to be trusted as evidence of present

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[12] 15 Mich. Law Rev. 205, 216; *Re Grafton County Electric Light & Power Co.* (N. H.), P. U. R. 1916 E, 879, 885–888. Compare *Appleton Water Works Co.* v. *Railroad Commission,* 154 Wis. 121, 154, quoting: "Skilled witnesses come with such prejudice in their minds that hardly any weight should be given to their evidence."

In *Re Michigan State Telephone Co.* (Mich.) P. U. R. 1921C, pp. 545, 554, 555, the Commission said:

"This method [reproduction at prices prevailing at time of valuation] of determining value usually included percentages for engineering services never rendered, hypothetical efficiency of unknown labor, conjectural depreciation, opinion as to the condition of property, the supposed action of the elements; and, of course, its correctness depends upon whether superintendence was or would be wise or foolish; the investment improvident or frugal. It is based upon prophecy instead of reality, and depends so much upon half truths that it bears only a remote resemblance to fact, and rises at best, only to the plane of a dignified guess." See also *Danbury* v. *Danbury & Bethel Gas & Electric Light Co.*, P. U. R. 1921 D, 193, 206 (Conn.).

In *Public Service Commission* v. *Pacific Telephone & Telegraph Co.*, P. U. R. 1916 D, 947, 955, the Commission said: "The old methods have proven uncertain, indefinite, and unsatisfactory to honest utilities and commissions alike."

See also *In re Northampton Gas Petition* (Mass.), P. U. R. 1915 A, 618, 626; *Public Service Commission* v. *Pacific Telephone & Telegraph Co.*, P. U. R. 1916 D, 947, 955.

value, was frequently expressed. And state utility commissions, while admitting the evidence in obedience to *Smyth* v. *Ames,* failed, in ever-increasing numbers, to pay heed to it in fixing the rate base.[13] The conviction is wide-spread that a sound conclusion as to the actual value of a utility is not to be reached by a meticulous study of conflicting estimates of the cost of reproducing new the congeries of old machinery and equipment, called the plant, and the still more fanciful estimates concerning the value of the intangible elements of an established business.[14] Many commissions, like that of Massachusetts, have declared recently that "capital honestly and

[13] Their action is in accord with views commonly held by legal writers. Compare Edwin C. Goddard, "Public Utility Valuation," 15 Mich. Law Rev. 205; Robert L. Hale, "The 'Physical Value' Fallacy in Rate Cases," 30 Yale Law Journal, 710; Donald R. Richberg, "A Permanent Basis for Rate Regulation," 31 Yale Law Journal, 263; Robert H. Whitten, "Fair Value for Rate Purposes," 27 Harv. Law Rev. 419; Henry W. Edgerton, "Value of the Service as a Factor in Rate Making," 32 Harv. Law Rev. 516; Gerard C. Henderson, "Railway Valuation and the Courts," 33 Harv. Law Rev. 902, 1031; Armistead M. Dobie, "Judicial Review of Administrative Action in Virginia," 8 Va. Law Rev. 477, 504. See also 32 Yale Law Journal, 390, 393; 19 Mich. Law Rev. 849.

[14] The Public Utility Reports for 1920, 1921, 1922 and 1923 (to March 1) contain 363 cases in which the rate-base or value was passed upon. Reproduction cost at unit prices prevailing at the date of valuation appears to have been the predominant element in fixing the rate base in only 5. In 63 the commission severely criticised, or expressly repudiated, this measure of value. In nearly all of the 363 cases, except 5, the commission either refused to pay heed to this factor as the measure of value, or indeed as evidence of any great weight.

The following summary shows the predominant element in fixing the rate base in the several cases:

In 5 cases: Reproduction cost at unit prices prevailing at the date of the valuation.

In 28 cases: Reproduction cost at unit prices prevailing at some date, or the averages of some period, prior to the date of the valuation.

prudently invested must, under normal conditions, be taken as the controlling factor in fixing the basis for computing fair and reasonable rates." [15]

To require that reproduction cost at the date of the rate hearing be given weight in fixing the rate base, may subject investors to heavy losses when the high war and post-war price levels pass—and the price trend is again

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In 12 cases: Reproduction cost at unit prices prevailing at some date not specifically stated.

In 22 cases: Reproduction cost of an inventory of a prior date at prices prevailing at that date or prior thereto, plus subsequent additions at actual cost (so-called split inventory method).

In 3 cases: Reproduction cost on basis of future predicted prices (so-called trend prices, or new plateau method).

In 102 cases: A prior valuation by the commission plus the actual cost of subsequent additions.

In 85 cases: The actual original cost (including both initial cost and additions).

In 6 cases: Original cost arbitrarily appreciated.

In 27 cases: The historical cost or prudent investment.

In 28 cases: Book cost or investment.

In 12 cases: Bond and stock capitalization.

In 36 cases: Determination and classification of method impossible.

[15] *Middlesex and Boston Rate Case,* Public Service Commission (Mass.), October 28, 1914, report, pp. 7-14; *Bay State Rate Case,* P. U. R. 1916 F, 221, 233. And see ibid for a quotation from an address delivered at the "Conference on Valuation" in Philadelphia, November, 1915, in which the late John M. Eshleman, first president of the California Railroad Commission, said: "If we had this problem at the beginning and were not attacking it in the middle, we would have no difficulty in agreeing with the holder of capital upon this subject, for he would quite readily agree to take the cost of doing the business plus an earning upon the money actually invested comparable to the earning offered in other available investments. Therefore, the cost of doing the business, plus a return upon the capital necessarily invested in the business, which return shall be as great as is offered in other businesses of similar hazard, is all that ought to be accorded for the future, and it is all that will be accorded if the public has any business sense. And if more is asked by the

downward.[16] The aggregate of the investments which have already been made at high costs since 1914, and of those which will be made before prices and costs can fall heavily, may soon exceed by far the depreciated value of all the public utility investments made theretofore at relatively low cost. For it must be borne in mind that depreciation is an annual charge. That accrued on plants constructed in the long years prior to 1914 is much larger than that

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private owner, then he may expect no sympathy when he finds the public his competitor and his earning power impaired."

No case involving the fixing of rates by a commission has ever come to this Court from New England. The only case involving in any way the validity of rates is *Interstate Consolidated Street Ry. Co.* v. *Massachusetts,* 207 U. S. 79.

See also *Re Cripple Creek Water Co.* (Colo.), P. U. R. 1916 C, 788, 799, 800; *Butler* v. *Lewiston, Augusta & Waterville St. Ry.* (Maine), P. U. R. 1916 D, 25, 35.

[16] Engineers testifying in recent rate cases have assumed that there will be a new plateau of prices. In *Galveston Electric Co.* v. *Galveston,* 258 U. S. 388, the company contended that a plateau 70 per cent. above the price level of 1914 should be accepted, and a plateau 33⅓ per cent. above was found probable by the master and assumed to be such by the lower court. In *Bluefield Water Works & Improvement Co.* v. *Public Service Commission,* 679, *post,* one 50 per cent. above the 1914 level was contended for; in the case at bar a plateau 25 per cent. above. But for the assumption that there will be a plateau there is no basis in American experience. The course of prices for the last 112 years indicates, on the contrary, that there may be a practically continuous decline for nearly a generation; that the present price level may fall to that of 1914 within a decade; and that, later, it may fall much lower. Prices rose steadily (with but slight and short recessions) for the 20 years before the United States entered the World War. From the low level of 1897 they rose 21 per cent. to 1900; then rose further (with minor fluctuations, representing times of good business or bad) and reached in 1914 a point 50 per cent. above the 1897 level. Then the great rise incident to the war set in. "Wholesale Prices, 1890 to 1921," U. S. Department of Labor, Bureau of Labor Statistics, Bulletin No. 320, pp. 9–26. These are averages of the wholesale prices of all commodities. In the Bureau chart the 1913 prices are taken as the datum

accruing on the properties installed in the shorter period since.[17]

That part of the rule of *Smyth* v. *Ames* which fixes the rate of return deemed fair, at the percentage customarily paid on similar investments at the time of the rate hearing, also exposes the investor and the public to danger of serious injustice. If the replacement-cost measure of value and the prevailing-rate measure of fairness of return should be applied, a company which raised, in 1920,

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line (100). As compared with them the 1897 level was 67, the 1900 level 81. The chart on page 10 of the pamphlet entitled, "Price Changes and Business Prospects," published by the Cleveland Trust Company, gives price fluctuations for the 110 years prior to 1921. It shows three abrupt rises in the price level, by reason of war; and some less abrupt falls, by reason of financial panic. These may be called abnormal. But the normal has never been a plateau. The chart shows that the peak price levels were practically the same during the War of 1812, the Civil War, and the World War; and it shows that practically continuous declines, for about 30 years, followed the first two wars. The experience after the third may be similar.

[17] The new enterprises undertaken at the present high level, or projected, are many; among them, development and long distance transmission of hydroelectric power, and of electric power generated at the coal mines. Moreover, nearly every utility now existing must make expenditures upon its plant to provide improvements, additions, or extensions. The growth of our communities, and increase in the demands of the individual, constantly compel enlargement of a utility's facilities. The present annual investment in public utility enterprises is much greater in amount than at any time in the past. Some of the construction done during the war was at prices for labor and materials 120 per cent. above those prevailing in 1914. Recent construction was at prices 70 per cent. higher. If replacement cost should become the measure of the rate base, the return on enterprises entered upon after 1914 would, obviously, be imperilled. And a serious decline of the price level would subject the return on many utilities established earlier to like dangers. A collapse of public utility values might result. And the impairment of public utility credit might be followed by the cessation of extensions and new undertakings.

for additions to plant, $1,000,000 on a 9 per cent. basis, by a stock issue, or by long-term bond issue, may find a decade later, that the value of the plant (disregarding depreciation) is only $600,000, and that the fair return on money then invested in such enterprise is only 6 per cent. Under the test of a compensatory rate, urged in reliance upon *Smyth* v. *Ames*, a prescribed rate would not be confiscatory, if it appeared that the utility could earn under it $36,000 a year; whereas $90,000 would be required to earn the capital charges. On the other hand, if a plant had been built in times of low costs, at $1,000,000 and the capital had been raised to the extent of $750,000 by an issue at par of 5 per cent. 30-year bonds and to the extent of $250,000 by stock at par, and ten years later the price level was 75 per cent. higher and the interest rates 8 per cent., it would be a fantastic result to hold that a rate was confiscatory, unless it yielded 8 per cent. on the then reproduction cost of $1,750,000. For that would yield an income of $140,000, which would give the bondholders $37,500; and to the holders of the $250,000 stock $102,500, a return of 41 per cent. per annum. Money required to establish in 1920 many necessary plants has cost the utility 10 per cent. on thirty-year bonds. These long-time securities, issued to raise needed capital, will in 1930 and thereafter continue to bear the extra high rates of interest, which it was necessary to offer in 1920 in order to secure the required capital. The prevailing rate for such investments may in 1930 be only 7 per cent.; or indeed 6 per cent.; as it was found to be in 1904, in *Stanislaus County* v. *San Joaquin & Kings River Canal & Irrigation Co.*, 192 U. S. 201; in 1909, in *Knoxville* v. *Knoxville Water Co.*, 212 U. S. 1; and in 1912, in *Cedar Rapids Gas Light Co.* v. *Cedar Rapids*, 223 U. S. 655, 670. A rule which limits the guaranteed rate of return on utility investments to that which

may prevail at the time of the rate hearing, may fall far short of the capital charge then resting upon the company.

In essence, there is no difference between the capital charge and operating expenses, depreciation, and taxes. Each is a part of the current cost of supplying the service; and each should be met from current income. When the capital charges are for interest on the floating debt paid at the current rate, this is readily seen. But it is no less true of a legal obligation to pay interest on long-term bonds, entered into years before the rate hearing and to continue for years thereafter; and it is true also of the economic obligation to pay dividends on stock, preferred or common. The necessary cost, and hence the capital charge, of the money embarked recently in utilities, and of that which may be invested in the near future, may be more, as it may be less, than the prevailing rate of return required to induce capital to enter upon like enterprises at the time of a rate hearing ten years hence. To fix the return by the rate which happens to prevail at such future day, opens the door to great hardships. Where the financing has been proper, the cost to the utility of the capital, required to construct, equip and operate its plant, should measure the rate of return which the Constitution guarantees opportunity to earn.[18]

The adoption of the amount prudently invested as the rate base and the amount of the capital charge as the measure of the rate of return would give definiteness to these two factors involved in rate controversies which are now shifting and treacherous, and which render the proceedings peculiarly burdensome and largely futile. Such measures offer a basis for decision which is certain and stable. The rate base would be ascertained as a fact, not determined as matter of opinion. It would not fluctuate

[18] The community may, of course, demand, in respect to financing, as in respect to operation, that the right to earn a fair return be limited by the requirement that reasonable efficiency be exercised.

with the market price of labor, or materials, or money. It would not change with hard times or shifting populations. It would not be distorted by the fickle and varying judgments of appraisers, commissions, or courts. It would, when once made in respect to any utility, be fixed, for all time, subject only to increases to represent additions to plant, after allowance for the depreciation included in the annual operating charges. The wild uncertainties of the present method of fixing the rate base under the so-called rule of *Smyth* v. *Ames* would be avoided; and likewise the fluctuations which introduce into the enterprise unnecessary elements of speculation, create useless expense, and impose upon the public a heavy, unnecessary burden.

In speculative enterprises the capital cost of money is always high; partly because the risks involved must be covered; partly because speculative enterprises appeal only to the relatively small number of investors who are unwilling to accept a low return on their capital. It is to the interest both of the utility and of the community that the capital be obtained at as low a cost as possible. About 75 per cent. of the capital invested in utilities is represented by bonds. He who buys bonds seeks primarily safety. If he can obtain it, he is content with a low rate of interest. Through a fluctuating rate base the bondholder can only lose. He can receive no benefit from a rule which increases the rate base as the price level rises; for his return, expressed in dollars, would be the same, whatever the income of the company.[19] That

[19] Of course, anyone who chances to have money to invest, when money rates are high, gets the advantage incident to investing in a favorable market. If he invests in utility bonds, the higher agreed return upon his capital would be provided for by a rule which measures fair return by capital charges, as suggested above. If he elects to invest in the stock, he would, under the rule suggested, have the opportunity of earning a return commensurate with the value of the capital at the time it was embarked as stock in the enterprise.

the stockholder does not in fact receive an increased return in time of rapidly rising prices under the rule of *Smyth* v. *Ames,* as applied, the financial record of the last six years demonstrates. But the burden upon the community is heavy because the risk makes the capital cost high.

The expense and loss now incident to recurrent rate controversies is also very large. The most serious vice of the present rule for fixing the rate base is not the existing uncertainty; but that the method does not lead to certainty. Under it, the value for rate-making purposes must ever be an unstable factor. Instability is a standing menace of renewed controversy. The direct expense to the utility of maintaining an army of experts and of counsel is appalling. The indirect cost is far greater. The attention of officials high and low is, necessarily, diverted from the constructive tasks of efficient operation and of development. The public relations of the utility to the community are apt to become more and more strained. And a victory for the utility, may in the end, prove more disastrous than defeat would have been. The community defeated, but unconvinced, remembers; and may refuse aid when the company has occasion later to require its consent or coöperation in the conduct and development of its enterprise. Controversy with utilities is obviously injurious also to the public interest. The prime needs of the community are that facilities be ample and that rates be as low and as stable as possible. The community can get cheap service from private companies, only through cheap capital. It can get efficient service, only if managers of the utility are free to devote themselves to problems of operation and of development. It can get ample service through private companies, only if investors may be assured of receiving continuously a fair return upon the investment.

What is now termed the prudent investment is, in essence, the same thing as that which the Court has always

sought to protect in using the term present value.[20] Twenty-five years ago, when *Smyth* v. *Ames* was decided, it was impossible to ascertain with accuracy, in respect to most of the utilities, in most of the States in which rate controversies arose, what it cost in money to establish the utility; or what the money cost with which the utility was established; or what income had been earned by it; or how the income had been expended. It was, therefore, not feasible, then, to adopt, as the rate base, the amount properly invested or, as the rate of fair return, the amount of the capital charge. Now the situation is fundamentally different. These amounts are, now, readily ascertainable in respect to a large, and rapidly increasing, proportion of the utilities. The change in this respect is due to the enlargement, meanwhile, of the powers and functions of state utility commissions. The issue of securities is now, and for many years has been, under the control of commissions, in the leading States. Hence the amount of capital raised (since the conferring of these powers) and its cost are definitely known, through current supervision and prescribed accounts, supplemented by inspection of the commission's engineering force. Like knowledge concerning the investment of that part of the capital raised and expended before these broad functions were exercised by the utility commissions has been secured, in many cases, through investigations undertaken later, in connection with the issue of new securities or the regulation of rates. The amount and disposition of current earnings of all the

[20] Compare Mr. Justice Field in *Railroad Commission Cases*, 116 U. S. 307, 343, 344; Mr. Justice Harlan, *ibid*, p. 341; *Dow* v. *Beidelman*, 125 U. S. 680, 690, 691; and *Reagan* v. *Farmers' Loan & Trust Co.*, 154 U. S. 362, 409, 412; where the necessity of limiting the broad power of regulation enunciated in *Munn* v. *Illinois*, 94 U. S. 113, was first given expression. See also "Public Utilities, Their Cost New and Depreciation," by H. V. Hayes, pp. 255, 256.

companies are also known. It is, therefore, feasible now to adopt as the measure of a compensatory rate—the annual cost, or charge, of the capital prudently invested in the utility.[21] And, hence, it should be done.

Value is a word of many meanings. That with which commissions and courts in these proceedings are concerned, in so-called confiscation cases, is a special value for rate-making purposes, not exchange value. This is illustrated by our decisions which deal with the elements to be included in fixing the rate base. In *Cedar Rapids Gas Light Co.* v. *Cedar Rapids,* 223 U. S. 655, 669; and *Des Moines Gas Co.* v. *Des Moines,* 238 U. S. 153, 165, good will and franchise value were excluded from the rate base in determining whether the prescribed charges

[21] In 1898, when *Smyth* v. *Ames* was decided, only one State—Massachusetts—had control by commission of the issue of securities by all public utility companies. (New Hampshire controlled security issues of railroads and street railways; Maine and New York controlled increase of capital stock by railroads; and Connecticut, the issue of bonds by railroads.) In 1923 at least 24 States and the District of Columbia controlled through commissions the issue of securities of public utility companies. Legislation for 1923 and 1922 (in part) has not been available. Other States may have legislated on the subject in 1923 or 1922.

In 1898 no State had control by commission of the accounting of all public utilities. Massachusetts controlled the accounting of gas, electric light, street railway, and railroad companies; Iowa, of railways and carriers; New York, Texas and Vermont, of railroads only. In 1923 at least 36 States and the District of Columbia controlled through commissions the accounting of public utility companies.

In 1898, only one State—Massachusetts—exercised through a commission control of all public utilities. In 1923 such control is exercised in at least 39 States and the District of Columbia. This does not include those States exercising commission control over railroads and related utilities, such as street railways, express companies, telephone and telegraph companies. These States number 47. The number of States having commission control of railroads in 1898 was 27. In 1922 every State except Delaware had commission control of railroads.

of the public utility were confiscatory. In *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388, the cost of developing the business as a financially successful concern was excluded from the rate base. In *Des Moines Gas Co.* v. *Des Moines*, 238 U. S. 153, 171, the fact that the street had been paved (and hence the reproduction cost of laying gas mains greatly increased), was not allowed as an element of value. But, obviously, good will and franchise value are important elements when exchange value is involved. And where the community acquires a public utility by purchase or condemnation, compensation must be made for its good will and earning power; at least under some circumstances. *Omaha* v. *Omaha Water Co.*, 218 U. S. 180, 202, 203; *National Waterworks Co.* v. *Kansas City*, 62 Fed. 853, 865. Likewise, as between buyer and seller, the good will and earning power due to effective organization are often more important elements than tangible property. These cases would seem to require rejection of a rule which measured the rate base by cost of reproduction or by value in its ordinary sense.

The rule by which the utilities are seeking to measure the return is, in essence, reproduction cost of the utility or prudent investment, whichever is the higher. This is indicated by the instructions contained in the Special Report on Valuation of Public Utilities, made to the American Society of Civil Engineers, October 28, 1916, Proceedings, Vol. 42:

"So long as the company owner keeps a sum equivalent to the total investment at work for the public, either as property serving the public, or funds held in reserve for such property, no policy should be followed in estimating depreciation that will reduce the property to a value less than the investment. . . . " (p. 1726).

"Estimates of the cost of reproduction should be based on the assumption that the identical property is to be

reproduced, rather than a substitute property" (p. 1719), —"although such a substitute property, much less costly than the existing plant, might furnish equal or better service, it is not reproduction of service, but of property, that is under consideration; and clearly the estimate should be of existing property created with public approval, rather than of a substituted property" (p. 1772).

If the aim were to ascertain the value (in its ordinary sense) of the utility property, the enquiry would be, not what it would cost to reproduce the identical property, but what it would cost to establish a plant which could render the service, or in other words, at what cost could an equally efficient substitute be then produced. Surely the cost of an equally efficient substitute must be the maximum of the rate base, if prudent investment be rejected as the measure. The utilities seem to claim that the constitutional protection against confiscation guarantees them a return both upon unearned increment and upon the cost of property rendered valueless by obsolescence.

DAVIS, DIRECTOR GENERAL OF RAILROADS, AS AGENT, ETC. *v.* FARMERS CO-OPERATIVE EQUITY COMPANY.

ERROR TO THE SUPREME COURT OF THE STATE OF MINNESOTA.

No. 270. Argued April 17, 18, 1923.—Decided May 21, 1923.

1. Solicitation of traffic by railroads in States remote from their lines is part of the business of interstate transportation. P. 315.
2. A state statute which provides that any foreign corporation having an agent in the State for the solicitation of freight and passenger traffic over lines outside the State may be served with summons by delivering a copy thereof to such agent, imposes an unreasonable burden on interstate commerce and is void under the