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Public Utility Debt Ratios and the Public Interest—Reasonable Fixed Charges and Just and Reasonable Rates

Melvin G. Dakin*

Mr. Dakin explores the complex and difficult field of the financing of public utilities corporations. He describes and evaluates the approaches of four commissions: the Securities and Exchange Commission which must approve the reorganization of public utilities corporations which have gone into bankruptcy, the Federal Communications Commission, the Federal Power Commission, and the Michigan Public Service Commission. He concludes by suggesting that in some instances these agencies are placing too great emphasis on their conception of sound financing at the expense of the customers served by these utilities.

I.

The decade of the 1930's witnessed a tremendous expansion in the scope of bankruptcy jurisdiction, likened by some to the addition of a new and modern wing to an essentially nineteenth century structure. High on the agenda of the first Roosevelt administration was the reform of corporate reorganization practices so as to afford more adequate protection to investors against the free wheeling securities transactions of earlier years. In March 1933 Congress enacted the first version of section 77 of the Bankruptcy Act, providing for the reorganization of railroads under court and Interstate Commerce Commission auspices. In June 1934 it followed with section 77B providing for general corporate reorganization under the aegis of the bankruptcy courts; provisions were made, however, for referring plans involving reorganization of public utilities to appropriate state or federal commissions for approval. In August 1935 Congress enacted a completely rewritten section 77 for railroad reorganizations and a statute providing, a pervasive scheme of regulation for the public utility industry in its interstate aspects; the latter was known as the Public Utility Holding Company Act of 1935. It provided that, in order to be effective, court proceedings in bankruptcy and reorganization involving public utility holding companies or their subsidiaries had to be submitted to the

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1. Ch. 204, § 77, 47 Stat. 1474 (1933).
Securities and Exchange Commission for approval.\textsuperscript{5} In addition the act contained provisions for reorganization under direct Commission supervision with court enforcement where necessary.\textsuperscript{6}

It was of the essence that submitted plans of reorganization be "fair and equitable" to assure that old security holders received their full and fair entitlement for securities relinquished. It was also important, in order to assure a "reasonable prospect of survival" to the reorganized companies, that new securities issued be reasonably adapted to earning power and capital structures. The Public Utility Holding Company Act specifically so provided and included an important omnibus provision that the "terms and conditions of the issue or sale of the security" not be "detrimental to the public interest or the interest of investors or consumers."\textsuperscript{7} The rewritten section 77, mentioned above, was even more explicit with respect to railroad reorganizations:

\[\text{[A reorganization plan] shall provide for fixed charges (including fixed interest on funded debt, interest on unfunded debt, amortization of discount on funded debt, and rent for leased railroads) in such an amount that, after due consideration of the probable prospective earnings of the property in light of its earnings experience and all other relevant facts, there shall be adequate coverage of such fixed charges by the probable earnings available for the payment thereof.}\textsuperscript{8}\]

Such preoccupation with sound security issuance was a natural aftermath of the excesses brought to light in the investigations undertaken in the early 1930's. The frenzied contests between holding companies for utility properties resulted in burdening the utility industry with a superstructure of holding company securities so fantastically overextended that collapse was inevitable. Acquisitions of properties were common at two, three, or more times their book value; in order to obtain properties, interest and dividend obligations were undertaken which were out of all proportion to the earning power of the properties. In much of this activity investment bankers played an important role. "In the heydey of holding-company exploitation just prior to the depression, investment bankers not only furnished financial aid when requested by holding companies, but solicited it and came to depend upon holding companies for business."\textsuperscript{9}

Often essential to the success of the holding company empire was the "pyramiding" device; this contrivance, by means of the issuance of senior securities at several levels, assured the top holding companies of control of a maximum of operating properties with minimum investment.\textsuperscript{10} Thus, starting with an operating property capitalized with 50% debt, 25% preferred

\begin{itemize}
  \item S. REP. No. 621, 74th Cong., 1st Sess. 55-57 (1935).
  \item S. Doc. No. 92, 70th Cong., 1st Sess. pt. 72A, at 156 (1935).
\end{itemize}
stock, and 25% common stock, there could be superimposed thereon a company holding the common stock; this latter company could in turn be capitalized with 50% preferred stock, or even some debt, and 50% common stock. This might be repeated two, three, or even four times; each repetition would preserve control through ownership of the common stock of the company below, but the investment burden would be shared with the senior security holders at a fixed return. Thus an investment of $15,000 at the top might control operating property worth $1,000,000. Assuming a 12% return on the common stock of the operating company, the return on the investment in the common stock of the top holding company might be several times that. Of course, if the investments in operating company securities were made at excessive prices, the fixed charges for interest and prior claims of preferred dividends might absorb the earnings of the operating company to the point where nothing was left for the upper reaches of the holding company structure. One of the more spectacular failures due to just such a practice is seen in the Associated Gas & Electric System, erected by H. C. Hopson and Associates. An investment of $300,000 at the top of the structure controlled a utility system having book assets in excess of $1,000,000,000; when the earning power of the operating properties was unable to support the holding company securities which had been issued in the process of pyramiding, the structure collapsed.

An almost inevitable accompaniment of excessive security issuance was the “write-up” of operating assets or portfolio securities to provide “balance sheet” support for such securities. Studies made by the Federal Trade Commission indicate that “write-ups” and improperly capitalized intangibles comprised $864,000,000 of the capital assets of $3,306,000,000 held by 91 privately owned operating companies in 1928. Additional write-ups were contained in the accounts of the holding companies erected on top of the operating companies.

Under the Public Utility Holding Company Act of 1935 the Securities and Exchange Commission set about the task of rationalizing the tangled mass of holding companies by outright elimination of some unnecessary companies and by limiting control, in the main, to one integrated public utility system “not so large (considering the state of the art and the area or region affected) as to impair the advantages of localized management, efficient operation, or the effectiveness of regulation.” At the Commission’s disposal was probably the most pervasive regulatory statute which Congress had ever enacted. Even as to subsidiary operating companies, its

11. Id. at 157-58.
12. Id. at 356. For approval of a reorganization plan by the Securities and Exchange Commission see Stanley Clarke, 15 S.E.C. 743 (1944).
powers over the issuance of new securities were dominant. These powers, coupled with the power to remedy unfair and inequitable distributions of voting power, enabled the Commission to compel reorganization of security structures and the elimination of write-ups. In discharging its duties under the act, the Commission was undoubtedly guided by the wise counsel of the National Power Policy Committee. In recommending legislation to Congress and the President, that Committee had said:

The ultimate purpose of the legislation should be the practical elimination within a reasonable time of the holding company where it serves no demonstrably useful and necessary purpose. But the amount of reorganization, transfers of assets, and distributions in dissolution required for the dismantling of our huge holding-company systems is so great that the task of elimination cannot be accomplished in a year or two without possibly too great a sacrifice of apparent values. Furthermore, it seems administratively advisable that every opportunity be offered the owners of holding-company securities to work out their own processes of dismantling. That opportunity should, of course, be vigilantly guarded to protect the average investor from the exploitation threatening him almost as a matter of course under our usual methods and mores of corporate reorganization. In destroying the abuses of the holding companies, the Government must not leave great groups of helpless investors to the certain abuses of extensive hurried corporate reorganizations. The dominant groups who have ruthlessly plucked the investor in promoting some of these huge holding companies must not be allowed to pluck him again as reorganization managers.

In the main, due to the pervasive statutory powers granted by Congress, the Commission's work could be accomplished by voluntary reorganizations under the Holding Company Act itself; reorganization or liquidation under the Bankruptcy Act was the exception rather than the rule. Nonetheless, the standards applied in the fixing of debt ratios and in the determination of appropriate over-all capital structures were necessarily those which Congress had spelled out in amending section 77 in 1935. As to new financing, the Holding Company Act was clear in requiring that securities issued be either common stock or bonds secured by a first mortgage or collateral.

As to refunding issues or exchanges, however, the Commission was given discretion to continue old capital structures in effect; here the Commission could find the standards of the act to be met, where earnings warranted the finding, even though the refunding debt securities were debentures rather than first liens in security and even though they aggregated as much as 60% of capitalization, or, with preferred stock, as much as 70 to 75% of

18. See note 8 supra and accompanying text.
Earnings coverage of two to three times interest on debt was, of course, possible even though the ratio of debt was 60% of capitalization, given favorable interest rates and a liberal rate of earnings. Approval of such transactions, however, made possible perpetuation of control with a disproportionately low common stock investment. Forces within the Commission were soon vigorously pressing the argument that bonds must be kept in a reasonable relationship to net property and capitalization, whether part of new financing or merely refundings. In 1941 the Commission announced that thereafter its policy as to both new and refunding issues would be the same. The Commission did not announce any specific debt ratio or ratios which it regarded as appropriate at this time, but it did quote various authorities, at least one of whom suggested "that a debt structure equal to 50 per cent of the original cost value would be high enough. . . . [F]referably, I would rather see a debt structure not exceeding 35 to 40 per cent of original cost values." A minimum percentage of capitalization for the common equity was thought to be 25%; "debt plus preferred should not exceed 75 per cent of present book value." The Commission relied heavily upon railroad financial history in its arguments for lowering the debt ratios of the public utility companies. Thus the Commission stated:

Perpetuation of a high debt structure through refundings may . . . be a policy which is unsafe except for a short run. For in times of trouble, earnings fall off and continued depression may bring about such a weight of fixed charges on excessive debt that bankruptcy ensues. Or bankruptcy may ensue from default on debt at maturity when further refunding is impossible because of adverse market, industrial or general economic conditions. If bankruptcy comes, the fairness of a reorganization plan must be tested by the doctrine of "full or absolute priority" as reaffirmed by the United States Supreme Court in *Case v. Los Angeles Lumber Products Co.* [308 U.S. 106 (1939).] In many instances, this means that the common stockholders may be denied participation in the reorganized company because of the absence of sufficient value to cover the senior interests in the bankrupt company. Refundings, despite their immediate benefits, may thus forebode a dire future, in the long run, for the common stockholders, although it may benefit them in the short run.

The debt ratio problems of the Commission may be illustrated by a rather typical refunding and accounting reorganization in the Electric Bond and Share Company. Bond and Share had gone into Florida in the middle 1920's and had begun the assembling of what is now Florida Power & Light Company. Properties with an original cost of some $25,000,000 were acquired for approximately $30,000,000. These properties, plus a

22. 21 SAVINGS BANK J. 34 (May, 1940), quoted in 8 S.E.C. at 383 n.1, 37 P.U.R. (n.s.) at 80 n.1.
23. 8 S.E.C. at 390-91, 37 P.U.R. (n.s.) at 87.
commitment to furnish some $12,000,000 in cash, were transferred to the new Florida Company in exchange for $30,000,000 principal amount of bonds, $12,841,000 of preferred stock and $30,000,000 stated value of common stock. Property account was charged with some $3,675,000 of bond discount on the $30,000,000 of bonds and with some $28,200,000 of "write-up" to balance otherwise unsupported common stock stated value.24

In 1941 the Commission instituted proceedings against Florida Company, seeking the elimination of write-ups, an increase in the reserve for depreciation, the subordination of certain debentures held by the parent, American, and the making of other corporate adjustments. Florida Company countered by filing an application to refund its bonds and call preferred stock without disturbing the write-ups in plant account nor making provision for amortizing certain acquisition adjustments.25 Such refunding of bonds and calling of preferred stock would have had the unquestioned effect of markedly improving earnings coverage; it would have perpetuated, however, an excessive debt ratio and a disproportionately small common stock investment when write-ups in plant account were taken into account. The ultimate compromise reached in this proceeding illustrates the difficulties facing the Commission in attaining its multiple objectives of a sound security structure in reasonable relationship to net property and with fixed charges reasonably related to earning power. Florida Company and its corporate parent American finally agreed to eliminate some $28,000,000 of write-up from plant account and to increase common stock investment by subordinating parent-held senior securities. But the Commission had to settle for a decrease in the debt ratio to capitalization from 77.3% to a still excessive 73.3%; in terms of debt ratio to net plant, the decrease was from 83.5% to 75.4%.26 Furthermore, the debt was of such proportions that a substantial part of it had to be in debentures and serial notes rather than the first mortgage bonds which the act required for new financing. One of the hard and practical facts which the Florida Company refunding illustrated was that the elimination of debt from the security structure was immediately reflected in higher income taxes, since interest expense was a deduction while earnings accruing to the common stock were simply income subject to full corporate income taxes. Thus, in the Florida Company case, because 5 and 6% bonds and $6 and $7 preferred stock were being eliminated, the earnings for the common increased almost $2,000,000. But income taxes increased almost $1,000,000 in the process.27 These taxes had to be collected, of course, from Florida Company consumers. Yet in the 1941 statement of principles governing new and refunding issues the Commission had said:

25. Id. at 87.
26. Id. at 100-01.
27. Ibid.
Replacing some of the existing debt by the sale of common stock may be at an apparent “cost” of 9 or 10 per cent yet actually it may cost the issuer's [present] stockholders nothing, and, moreover, may add a substantial margin of safety to the remaining senior securities. On the other hand, a mere reduction in interest rates may be only an apparent benefit, creating the illusion that the capital structure is being strengthened because of an increase in earnings coverage, but in reality perpetuating a top-heavy debt structure that subjects the company to the risk of default and the common stock to the risk of being completely wiped out.  

In its 1935 report and recommendation for holding company legislation, the National Power Policy Committee had stated that “as in almost every phase of the holding-company problem the ultimate interests of consumers and investors are identical” and had concluded that “in a system burdened with overcapitalized and debt-ridden holding companies, the consumers of operating subsidiaries have to support the top-heavy structure by paying high rates and by enduring poor service from inadequately maintained plants.” This was no doubt a sound conclusion in the context of holding company abuses which, as in the case of Florida Company, could result in an operating utility being bonded to as much as 100% or more of its net original cost; higher rates are inevitable where excessive holding company security structures have to be supported by “trading on a [non-existent] equity.” But with write-ups squeezed out of the corporate structure and securities issued only against sound value, how far could the drive to convert debt to common equity, as a hedge against the “risk of default,” be carried in the face of increasing cost to the consumers through higher taxes and the higher return expected from common stock investment?  

Some indication of the pressure exerted by tax considerations is to be gleaned from the 1942 amendments to the Internal Revenue Code; these provided that where preferred stock is issued to replace bonds or debentures issued prior to 1942, the dividends on such stock are entitled to a limited deductibility of 27% of such dividends (on the basis of present corporate rates), thus cushioning the tax transition from debt to equity. The deduction, however, is considerably less favorable than the 100% deductibility of interest, and, in any event, is not available for new financing. It was rendered unattractive to parent holding companies as a mode of investment in subsidiaries by a provision making such public utility preferred dividends received by corporations subject to a lesser dividend credit than the 85% credit available generally in the case of dividends from domestic corporations.  

29. S. REP. No. 621, op. cit. supra note 9, at 59.  
31. INT. RLEV. CODE OF 1954, § 243. In order to bring additional pressure on holding companies to simplify their systems, the Internal Revenue Code provided for only 85% credit for dividends received by a corporation from a domestic corporation; this subjected dividends to a tax of 15% each time they passed through a holding com-
II.

In the immediate postwar period the Securities and Exchange Commission continued its efforts to bring down debt ratios in favor of common stock investment. However, both the low interest rates for bond money and the fact that relatively few rate regulatory commissions were as yet prepared to compel utilities to share such savings with consumers made the task of the Commission difficult indeed. Illustrative is a refinancing approved for the Gulf States Utilities Company in 1946. That company was permitted to call a 30-year, 3% bond issue, outstanding only some seven years, at a cost of almost $2,000,000; it was also allowed to issue new 2% bonds and serial notes to cover the principal amount of the old bonds plus cost to call. To harvest these interest savings the debt ratio was permitted to increase from 49% to 51% of capitalization. Many other such transactions could be noted, and by 1951, Philip Sporn, president of American Gas & Electric Company, felt that he could report a definite modification in the Commission's drive to convert debt to equity. Addressing the New York Society of Security Analysts, he made the following comments:

I believe that perhaps the most optimistic development from a financing standpoint that has taken place as far as the utility industry is concerned is the progress that we have made with regulatory agencies, particularly with the Securities and Exchange Commission, in getting across the relatively simple but very basic idea that the road to a financing Utopia did not lie along a line of higher and higher equity ratios. It is only a few years ago that responsible members of regulatory bodies were preaching the gospel of salvation through higher equity ratios and were attempting to bring practice in line with the gospel by insisting on a program of raising equity ratios to limits presumably of the order of 50 per cent and possibly higher. The fact that the income tax structure made that more expensive money was supposed to be overbalanced by the higher price-earnings ratio as equity ratios were raised. But this myth has been pretty well exploded, and regulatory bodies in general are aware of the fact that, while from a standpoint of minimum headaches to management and regulatory bodies, 100 per cent equity ratio capital structure may be desirable, it cannot be done except at a terrific increase in the cost of service given to the customer. As a consequence, I think we are going to see a stabilization of equity ratios in high-grade and financially

pany. In addition, as to public utility companies, the credit for dividends on preferred stock was further limited to approximately 62%, thus making it advantageous taxwise for a holding company to convert preferred stock holdings in a subsidiary into common stock holdings subject to the 85% credit. Int. Rev. Code of 1954, § 244; 1 SHEIDMAN, LEGISLATIVE HISTORY OF FEDERAL INCOME AND EXCESS PROFITS TAX LAWS 1953-1959, at 1436-37 (1954).

33. Id. at 74. In connection with an earlier exchange of preferred stock the Commission had, however, required a charter provision to the effect that no dividend on common stock would be paid which would have the effect of reducing the ratio of common stock and surplus to total capitalization below 25%. Engineers Pub. Serv. Co., 24 S.E.C. 551, 602 (1946).
well-set-up companies around the level of 30 to 35 per cent. This is going to continue to be of enormous help in keeping the cost of service down.  

The Commission was charged primarily with remedying evils resulting from the abuse of the holding company device, particularly in such matters as control exercised through disproportionately small investment; as to consumers, it was concerned primarily that proposed transactions involving securities not "result in unduly burdensome fixed charges thereby adversely affecting rates . . . " It was understandable that the Commission would not have articulated clearly the apparently opposed notion that insufficient fixed charges might also adversely affect the rates which consumers must pay.  

Seemingly, the Commission was willing to recognize the rate advantage to be gained by financing through debt rather than equity only where the consumer involved was of such stature that the normal risks of enterprise were practically non-existent. Thus, the Commission found it possible to approve a joint application by several companies to acquire common stock of a generating company which was to be capitalized with 95% debt and 5% common stock. Power contracts with the Atomic Energy Commission and provisions for debt amortization were thought to be such that the securities "involved no undue risk to the security holders despite the high ratio of debt financing." The Atomic Energy Commission, as a consumer, had negotiated rates "intended to produce revenues sufficient to provide for operating expenses, interest at 3% per annum on its [the generating company's] debt and a return of approximately 8% on its common stock equity." Other similar proposals involving generating plants to service the AEC have subsequently been approved.  

We have noted that the Securities and Exchange Commission was charged primarily with remedying holding company excesses in the matter of capitalization; it was hoped that consumer savings would be brought about through elimination of "unnecessary" fixed charges. When one turns to the decisions of the Federal Power Commission involving capitalization ratios, one finds a definite shift in emphasis; this Commission is

34. Quoted in 47 PUB. UTIL. FORT. 310-12 (1951).  
36. As early as 1942 the Commission had noted that "for an operating company, we think a ratio of even 66 per cent debt and no preferred stock may well be more conservative than a ratio of 50 per cent debt plus 25 per cent preferred stock—a structure that has been thought allowable by some authorities." Jacksonville Gas Co., 11 S.E.C. 449, 472, 45 P.U.R. (n.s.) 65, 89 (1942).  
39. 32 S.E.C. at 304.  
41. "[O]ur inquiry into the interests of consumers is limited." Mississippi Valley Generating Co., supra note 38, at 181.
involved directly in rate regulation and in the determination of the appropriate costs which should underlie a schedule of rates. In this context, its views on the appropriate ratio of debt are particularly significant. Asked to approve a security structure of 90% debt and 10% common equity for a generating company under contract to service an AEC project, this Commission's primary interest was in the cost savings involved. Thus, in South Carolina Generating Co. it said:

Our experience over the years has revealed that with all other factors equal, utility companies with high debt ratios and thin equities can raise their funds at an overall cost lower than those companies with normal ratios, i.e., lower debt ratios and broader equities. While the debt of those companies with high debt ratios ordinarily will demand a higher rate, this greater cost is more than offset company-wide by the thinness of the equity. This is true because the leverage of the thin equity permits a tremendous potential increase in return on the common, assuming the same overall rate of return. Due to the relative stability of utilities, investors are willing to pay a premium for this increased earning potential.42

This heightened interest in debt ratio had its origins, of course, in the method of determining fair return which, since Federal Power Comm'n v. Hope Natural Gas Co.,43 has been constitutionally available to this Commission. Under this method the Commission has been free to determine a differentiated rate of return as follows: the composite contractual rate on the utility's outstanding debt and an allowance for common equity (arrived at by adjusting the appropriate earnings-price ratio for the common stock by "other factors considered by investors") are composited; this composited rate is applied to the net investment of the utility in property and working capital.44 It is apparent that under this method of return determination the amount of low cost debt in the calculation is of great significance: the greater the percentage of low cost debt, the smaller the resultant composite over-all cost. It matters not that the investor expectation for common equity advances as the percentage of debt increases; the savings from debt issuance are usually substantially greater than the additional allowance necessary for the common stock.45 Of course, the Federal Power Commission would probably not approve 90% debt for electric utilities, except in the unusual circumstances presented by a utility firm having a long-term power contract directly or indirectly with the AEC and having common stock which is to be subscribed by a parent utility.46 In fact, in fixing rates for power to be sold for other than AEC purposes, the Commission in South Carolina Generating Co. allowed the return to be calculated on the basis of the more conservative capital structure of the corporate parent;

43. 320 U.S. 591 (1944).
44. Id. at 601-03.
46. Ibid.
this structure consisted of some 63% debt, 9% preferred stock, and 28% common equity. In this way the Commission allowed the fruits of trading on a disproportionately small equity to inure in substantial part to the corporate parent rather than to be passed on to the consumer.\textsuperscript{47}

Where the Federal Power Commission has been called on to approve capital structures in connection with the determination of rates for the transportation and sale of natural gas, it has needed no special considerations to warrant approval of debt ratios up to 75% and common equity ratios as low as 15%. However, in approving a rate application from Houston Texas Gas & Oil Corp. and Coastal Transmission Corp.,\textsuperscript{48} the Commission indicated that it regarded 15% common equity as a minimum to assure a "reasonable standard of safety":

The initial capitalization here contemplated for both companies of less than 15 per cent in equity and the remainder in debt would result in such a large portion of the income of the companies being spent for debt service as to leave very little margin for times when economic conditions are less favorable. . . . In the order below we will therefore provide that both companies shall file amended plans of financing to provide that equity capital shall consist of at least 15 per cent of the total capitalization.\textsuperscript{49}

Here again the Commission uses a somewhat hybrid version of the differentiated return or cost of capital approach. In countering the Coastal applicant's case for an over-all 6\(\frac{3}{4}\)% return, the Commission found as follows:

If each company finances, as we shall require, with a 15 per cent common equity ratio, and the remainder of the capitalization is 73 per cent in bonds with a cost of, for example, 4\(\frac{1}{4}\)% per cent (instead of the proposed interest rate of 4.5 per cent) and 12 per cent in interim notes with a cost of 5.5 per cent, an overall rate of return for either company of 6\(\frac{1}{4}\)% per cent would result in a return on equity of approximately 14 per cent, which is excessive. . . . To remedy these defects in Coastal's proposals we shall require that the tariff to be filed by Coastal shall provide initially for a rate of return of 6 per cent and that the rate of return to be used in the cost-of-service formula shall be recalculated every six months.\textsuperscript{50}

Such treatment might be construed as permitting the common stockholder to "trade on the equity" to a limited extent but within an over-all ceiling on rate of return. A true differentiated return would require an allowance for the common stock to be independently determined from comparative market data; such an allowance would only fortuitously equate to 6% over-all when combined with the contractual rate on debt and the

\textsuperscript{47.} Ibid. The utility's corporate parent argued that it would have to abnormally increase its own common equity to offset the low equity capital ratio of its subsidiary, thus justifying absorption of the savings.


\textsuperscript{49.} Id. at 140, 16 P.U.R.3d at 356.

\textsuperscript{50.} Id. at 137, 16 P.U.R.3d at 352-53.
The natural urge on the part of the common stockholders to keep the fruits of trading on the equity can sometimes be enlarged upon in the obscure processes of rate-making, as witness a development previously alluded to in connection with *South Carolina Generating Co.* In order to obtain an AEC contract, rates were negotiated sufficient to cover operating expenses, interest on debt, and a fixed return for the common equity. Operating expenses in this context included income taxes; in the computation of these taxes, interest on the debt had been taken as a deduction (the higher the debt ratio in the capitalization, the larger the amount of interest deductible, the smaller the taxes and total operating expenses, and as a final consequence, the lower the rates which can be quoted). Having obtained a long-term contract on this basis but having excess power to sell over the demands of the contract, the generating company and its common stockholder, Georgia Power Company, sought Commission approval on a rate for such excess power. The debt ratio problem was given a new twist. Rates for the *public* were sought to be set as though the favorable debt ratio did not exist or, in any event, as though it was offset by the necessity on the part of the parent company to improve its common equity because of the "thin" equity of its subsidiary. The parent, Georgia Power, suggested that a theoretical corporate structure of only 50% debt was more appropriate for the *public* rates; this would increase operating expenses by means of higher taxes, lowered interest cost, and increased allowance for the common at a rate three or four times the cost of interest on debt for the same dollars of capitalization. To this argument, the Commission answered:

"This is an attempt to enjoy the benefits of the high-debt financing, i.e., the construction of low-cost capacity and the consequent sale to du Pont, while making Georgia Power Company and ultimately the consumers in Georgia assume fictitious costs. As such, the allowance proposed by Generating Company is unreasonable. We have consistently held that the allowance for taxes should not exceed taxes paid. . . . Accordingly, the income tax allowance in this proceeding should be based upon the actual interest deduction of the Generating Company for that is the basis upon which it will pay its taxes."

The Federal Power Commission, dealing only with electric and gas utilities, could maintain quite readily that it would have no traffic with hypothetical debt structures and their interest and tax consequences: the industry with which it dealt was one which looked to the public markets for investment funds, traditionally using predominantly senior securities. While the Securities and Exchange Commission's administration of the

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51. See GLAESER, PUBLIC UTILITIES IN AMERICAN CAPITALISM 388 (1957).
53. Id. at 65, 15 P.U.R.3d at 303. This position was adhered to on remand. See 249 F.2d 755, 764 (1957); 23 P.U.R.3d 492, 503-06 (1958).
Holding Company Act had brought substantial pressure upon utility managements to look to common stock as a source of capital supply as well as a means of control in order to bring down debt ratio, the Federal Power Commission did not maintain that pressure to the same degree but was content with such modest equity ratios as we have seen; commendably, it sought also to force a sharing of the savings from high debt ratios with the consumers. It required no urging for these utilities to “trade on the equity” in order to obtain needed capital.

III.

In the Bell system, the Federal Communications Commission is faced with a regulatee whose attitude towards debt is, by the standards of the natural gas and even the electric industry, staunchly conservative. As the Commission reported to Congress in 1939:

In contrast to certain public-utility holding companies with pyramided capital structures which made them subject to the accentuated impact of diminishing earnings during times of business depression, the American Telephone & Telegraph Company common-stockholder is, by and large, subject only to the direct influence of changes in the gross and net earnings, without the element of accentuation due to leverage.54

The Commission also noted:

The capital structure of the Bell System, on account of a small proportion of long-term debt in comparison with total capitalization, creates a safety of equity investment which is rarely equaled by other public-utility systems, which usually have a much higher ratio of fixed income-bearing securities. . . . [T]he net income available to the stockholder of the American Co. has shown a stability commensurate with the stability of the earnings of the telephone system as a whole, which, though it has varied, has never reached dangerously low levels or the vanishing point, because of the comparative stability of rates and the essential need for the service.55

The above statements were made as part of a final report by the Commission on a broad investigation into the telephone industry authorized by Congress in 1935. Because of budget and time limitations the investigation had to be confined largely to the operations of the American Company; the Congressional charge extended, however, to all interstate telephone operations and specifically to “corporate and financial history; capital structure; . . . apportionment of investments, revenues, and expense between State and interstate operations; . . . the effect of monopolistic control upon the reasonableness of telephone rates and charges; and the reasons for the failure generally to reduce telephone rates and charges during the

55. Ibid.
years of declining prices.”56 One of the immediate results of the investigation was a substantial decrease in telephone rates “effected as a result of conferences between the Commission and the company without the necessity of legal proceedings.”57 The longer run effects were said to be as follows:

The investigation has resulted in the development and the analysis of a large and important fund of data which is ample to form the foundation upon which adequate regulatory machinery may be constructed. Data developed have proved of value to State commissions in meeting the problems with which they are confronted in the regulation of intrastate rates of telephone companies.58

Since the reduction in long distance rates, alluded to above, was worked out in conference, it is not known what precise considerations were taken into account in effecting it; it seems extremely likely, however, that the “cost of money” factor played a very important role. In any event, concern with this problem resulted in a staff study of rate of return or “cost of money” which could well have had significance in negotiating lower long distance rates.59 The staff study noted at the outset that in 1937 American’s long distance operation represented an investment of $328,000,000; consequently, a variation of 1% in the rate of return would amount to $3,280,000 in annual charges to subscribers.60 In 1938 “after more than a quarter of a century of regulatory experience,” the staff thought it significant “that very little is to be found in court decisions, or in the standard works on public utilities, respecting the basic principles which must necessarily underlie any systematic determination of the rate of return.”61

The staff selected for study “rate of return determination by comparison to costs of capital incurred by other utilities”; this topic had been suggested by the United States Supreme Court in Bluefield Water Works & Improvement Co. v. Public Service Commr.62 In that case, decided during the same term in which Justice Brandeis made his historic attack on the “fair value” method,63 the Court theorized as follows on the appropriate rate of return:

A public utility is entitled to such rate as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the

56. Id. pt. XVII.
57. FCC, ANN. REP. 30 (1940).
58. FCC, ANN. REP. 19 (1939).
60. Id. at 2.
61. Ibid.
62. 262 U.S. 679 (1923).
country on investments in other business undertakings which are attended by corresponding risks and uncertainties... 64

The data and conclusions of the study have fulfilled at least one of the announced objectives: state regulatory commissions were supplied with information which they might use in meeting the problems confronting them in the regulation of intrastate rates of telephone companies.

Two aspects of the study are of interest in considering the problem of determining an appropriate debt ratio for rate-making purposes. The first dealt with “experienced capital costs as a measure of return requirements.” Data was gleaned from selected large telephone, electric, and gas utilities having publicly traded stock. 65 Conclusions were sought as to the relation between overall costs and the percentage of debt and common equity. The results indicated a somewhat lower over-all cost of money for companies with over 60% common equity than those with less than 60%. The staff thought other factors not taken into account would prevent this aspect of the study from being taken “as conclusive evidence that a large proportion of common stock tends towards low over-all capital costs.” However, the staff thought it “clearly established that a large proportion of stock in the capital structure does not necessarily result in high-cost financing, when costs of capital are measured by the methods used herein.” The methods alluded to were (1) the compositing of costs of capital for the bonds and common stocks of selected companies determined from market data over a ten year period and (2) the relating of this composite cost to the proportion of debt and common stock in the capitalization.

The other interesting aspect of the study supplied one of the substantial reasons for the tentative nature of the staff’s conclusions. This facet of the investigation was an analysis of investor’s appraisals of utility securities. A more extensive sampling of telephone, electric and gas utilities was made than in the first-mentioned aspect of the study. 66 The results indicated that from 40 to 50% might be the optimum proportion for bonds and that, in combination with common stock, this range yielded the lowest over-all cost of capital. 67 In the study, data was arranged so as to demonstrate the effects of income stability and earnings coverage of fixed charges as well as the effect of debt and common stock ratios in the capitalization. The examination of the bond issues of Bell system companies clearly demonstrated the effect on bond yields and earnings-price ratios of the conservative financial management and resulting high credit of the American Company and its subsidiaries. The results of the studies were “consistent with the common-sense observation that when interest requirements are

65. FCC, op. cit. supra note 59, at 155-79.
66. Id. at 105-54.
67. Id. at 152 table 13.
already well covered, additional earnings do not make much difference while under more doubtful conditions, a small change in coverage may mean a considerable difference in investors' appraisals. The study concludes by stating that if American's long distance operation had been separately incorporated, “its securities would be at least as attractive to investors as those of individual Bell companies which do have securities in the hands of the public.” The Commission staff reached no clear cut conclusion on the effects of a high equity ratio and a low debt ratio on the over-all cost of money; therefore no proposals were made that, in determining a rate of return for the long distance operation, a hypothetical debt ratio should be introduced. The staff's suggestion of a proposed rate appeared to be based on the existing capitalization of American, in effect pro-rated to the long distance operation. Since the constitutional apparatus of “fair value” had not yet been scrapped by the United States Supreme Court, the rate of return arrived at was deemed applicable, at least to a net-investment base consisting of the cost of property in service plus working capital and supplies less reserve for depreciation; the use of the capitalization itself as a rate base had yet to be accepted.

IV.

How did the state commissions develop the role of debt ratio, earnings coverage, and related income tax savings as factors in rate regulation? A sampling of the work of the Michigan commission may serve to illustrate; during the two decades since the FCC studies this commission has been ably staffed and led by astute commissioners.

Following the 1944 decision of Federal Power Comm'n v. Hope Natural Gas Co., which freed regulatory commissions from the “fair value” formula and made possible the use of “cost of capital-prudent investment” methods, the Michigan Public Service Commission initiated rate reduction proceedings against all utilities in the state subject to excess profit taxes. Included among the companies was Michigan Bell Telephone Company; it was found to be accruing excess profit taxes for the year 1944. Freed from “fair value” restraints, the commission's expert witness approached the problem of fixing just and reasonable rates by constructing a differentiated

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68. Id. at 125.
69. Id. at 184.
70. Id. at 187.
71. "Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling. . . . From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business . . . . service on the debt and . . . . return to the equity owner . . . commensurate with returns on investments in other enterprises having corresponding risks." 320 U.S. 591, 602-03 (1944).
73. Ibid.
rate of return. In determining this rate, he first observed that "the utility industry... [generally] has a capital structure which absorbs considerably more than 30 per cent [of net operating income] for fixed charges. The Bell System as a whole, on a consolidated basis, absorbs somewhat less than that figure, a figure running 25 per cent or, in some cases, less than 25 per cent." The witness then submitted calculations showing

the overall cost of capital to a company on the assumption that it is going to finance to the point where bond interest absorbs 30 per cent of the total income available; the balance of 70 per cent is allocated to stock payments, where the assumed cost of the capital raised by bonds is to the company 2.735 per cent; and where the assumed cost of the capital acquired by stocks is 6.56 per cent.

He concluded that on such a basis "the overall estimated cost of capital would be 4.62 per cent; and those assumptions would result in a capital structure of 50.69 per cent in bonds, and 49.31 per cent in stocks," and that he "would consider such a capital structure to be a reasonable structure in the utility industry, or in the telephone industry." The witness noted that such a capital structure for a telephone utility would not be "inconsistent with capital structures that already exist extensively in the utility industry." His studies showed that the "utility industry, as a whole, is financed on a capital structure, ... which shows out of total capital bonds in the amount of approximately 46 per cent; preferred stock in the amount of approximately 15 per cent . . . and common stock and surplus in the amount of some 39 per cent."

The Michigan commission, however, was not quite ready to fix rates directly on the basis of the average capital structure for the utility industry; nor was it ready to fix capital structure based on devoting 30% of net operating income to interest on a 51% debt ratio at current interest rates. Instead it assumed that the cost of capital for Michigan Bell was identical with the cost of capital of another Bell subsidiary which had publicly held common stock and which it found comparable. Such cost of capital was based on a capitalization of 30% debt and 70% equity, which was substantially the "historical" capitalization of the consolidated Bell companies; it calculated out to 4.72% on an over-all composite or differentiated basis and supported an order to decrease gross revenues $3,500,000.

While review of this decrease order was pending in the courts of
Michigan, the utility filed in 1947 for an increase of $10,500,000 based on the alleged need of the company for a 6.53% composite return on net investment in property in order to satisfactorily attract capital. Due to the exigencies of post-war financing, the Bell system was at this time borrowing heavily and the request was based on actual system capitalization which approached a 50% debt ratio. The utility made a strong plea for substantially increased earnings for the common equity so that common stock financing could be immediately resorted to in order to restore a “conservative” capital structure. It was urged that the rate of earnings for Michigan Bell should be adequate to support the market price of the common stock of the American Company at a price “reasonably” above the book value, in order to permit sales of additional stock without impairing the existing stockholder’s position. This rate of return on common equity was said to be 8.67%; presumably it would, if granted, enable American to market common stock in quantities such as to bring its debt ratio down toward its “historical” objectives of 30 to 35%.

A financial expert was again called on by the Michigan commission to make cost of capital studies; he found that interest rates were now at a level where devotion of a conservative 20 to 25% of net operating income to fixed charges (fixed charges earned four to five times) resulted in a recommended debt ratio of 39 to 46% and a over-all composite cost of capital of from 5.7 to 6%, based on a weighted average earnings-price ratio of 7.13% for Bell system common stock. The commission thought an over-all 6% return would enable the utility to meet the “full requirements of the company’s funded debt, if any, and a reasonable dividend upon the capital stock of the company, and allow a reasonable addition to be made to the company’s earned surplus.” It expressed no concern over restoring the utility capitalization to a more conservative, lower debt ratio; since it was the assumption of an almost 40% debt ratio (and a 3.1% interest rate) which made a 6% over-all rate of return a possible result, this was understandable. The commission nonetheless granted $8,200,000 of the $10,500,000 requested increase in gross revenues.

The ink was hardly dry on this “6%” order when a new application was filed for an additional $20,400,000 of gross operating revenues. Again, the additional revenues were urged to be necessary in order to improve the earnings position of American common stock, thus making possible additional common stock financing and encouraging the conversion of outstanding stock.
ing convertible debentures into common stock. But now the deterring effect of debt ratio on higher rates was plainly evident, for a capital structure of 33% debt at 3% and 67% equity at even 9% yielded a composite return of only 7%; a 7% return on invested capital did not warrant any such substantial increase in revenues as $20,400,000. Furthermore, the Michigan commission had just approved a 40% debt ratio and a 6% over-all composite rate as adequate, on the assumption that an 8% rate for equity would make common stock financing and debenture conversion sufficiently attractive.

At this point a happy blending of seemingly incongruous approaches to rate determination provided a solution. The utility had proposed a 7% return, not on an investment rate base but on fair value rate base (denominated however, not fair value but “current investment cost”). The result on debt ratio and return on common equity was striking; 33% debt out of an actual investment of $280,000,000 was $92,400,000, but if the rate base was lifted to $360,000,000 by using “current investment cost,” the debt of $92,400,000, contracted in fixed dollars, became not 33% but 26% of the base. Interest centers not so much on such refinements with respect to debt ratio, however, as on the dollar effect of applying an over-all composite rate of return of 7%, which the original debt and equity ratios had yielded at 3% and 8% respectively; 7% applied to a rate base of $360,000,000 obviously yielded a great many more dollars of return than 7% applied to $280,000,000.

The Michigan commission might at this point have maintained its previous findings that 3% on the actual Bell system debt, apportioned to the Michigan operations, was realistic and appropriate and that 8% on the remaining actual common equity was likewise appropriate; instead it decided another increase for the common stock was in order but that it should be achieved, not by specifically increasing the rate of return on the actual common equity, but by accepting fair value and thus increasing the base to which the over-all composite rate of return was to be applied. The commission thus preserved the theory of a 40% debt ratio and a 6% composite rate of return. Its conclusion in this respect is interesting:

> We do not believe that the present fair value of the property of the utility is, could, or should be either the original cost, as above indicated, or the rate base in terms of 1949 dollars, as indicated by the computation of current costs, but we are of the opinion that the present fair value lies somewhere between these two figures. It is, in its final analysis, a matter of judgment to be exercised by the Commission. It should and must be the result of a thorough, careful, honest, and impartial consideration of all the various elements in the case bearing upon this subject. It must be a result of a realistic approach giving due weight to the stage

85. The staff recommended an overall return of 5.7% which when applied to invested capital resulted in “required” earnings of less than the actual earnings for the test period. Michigan Bell Tel. Co., supra note 84, at 356 (dissenting commissioner’s analysis).


of the economic cycle in which we are living, and it is important to note at this juncture that to adopt in mere words the philosophy of fair value and to arrive at a dollar result coequal in amount with original cost is merely a play on words and paying lip-service to this important and fundamental principle. We do not propose to thus toy with this all important phase of the case before us.

Upon a careful consideration of all the elements entering into the formation of a sound judgment upon the matter of present fair value, we deem and decide that the present fair value, or rate base, for the purposes of this case is the sum of $350,000,000.88

The commission did not remind itself that realistically it was approving, not a 40% debt ratio with accompanying coverage for fixed charges, but a 32% debt ratio with commensurately increased coverage of fixed charges. A dissenting commissioner thought the fair value approach of his colleagues "nebulously" contrived and difficult to reconcile with the need for a "consistent standard."90

The commission had had some second thoughts about its handling of the rate base problem by the time an application for a further increase was made the following year.91 While not excluded, the evidence on fair value or "current investment cost" as termed by the utility was found "not . . . to be conclusive of any of the issues in [the rate increase] proceeding."92 Instead, the commission ordered the production of operating and cost of capital data as prepared by the comptroller for the Bell system and its corporate and state segments. In the context of actual capitalization rather than fair value or "current investment cost," it was found that the debt ratio had a substantial effect indeed upon over-all rate of return and upon return for the common equity. The following hypothetical example was found "worthy of thoughtful study":

<table>
<thead>
<tr>
<th>$1,000,000 Investment at 6% Rate of Return Under Alternative Capitalizations</th>
<th>(A) ½ Debt @ 3%</th>
<th>(B) ½ Debt @ 3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary earnings after taxes</td>
<td>$ 60,000</td>
<td>$ 60,000</td>
</tr>
<tr>
<td>Bond interest requirement</td>
<td>10,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Balance available for common</td>
<td>$ 50,000</td>
<td>$ 45,000</td>
</tr>
<tr>
<td>Amount of common equity</td>
<td>$666,667</td>
<td>$500,000</td>
</tr>
</tbody>
</table>

88. Id. at 343-44. (Emphasis added.)
89. Id. at 355-56.
91. Id. at 24.
<table>
<thead>
<tr>
<th>Return on equity capital</th>
<th>7.5%</th>
<th>9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary gross income before taxes</td>
<td>$104,340</td>
<td>$99,906</td>
</tr>
<tr>
<td>Total taxes at 4% (after bond interest)</td>
<td>$44,340</td>
<td>$39,906</td>
</tr>
<tr>
<td>Gross income after taxes (required earnings)</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

The commission was impressed with the fact that as a result of the lower cost of debt and the tax savings incident thereto, a 6% over-all return meant a 9% return on common equity to the company with 50% debt and only 7.5% on common equity to the company with 33% debt. It found income before taxes would have to decline 90% in Case (A) and 85% in Case (B) before bond interest would not be covered. Other data indicated to the commission that stock purchasers gave only slightly greater weight to a four or more times interest and preferred dividend coverage as compared with a two and a half times coverage in demanding dividend yield and earnings-price ratio; the larger coverage indicated, from a sample of 14 large utilities, a dividend yield of 5.34% and the lesser coverage a dividend yield of 6.26%.\(^9\) If the implications of these data were reliable, the commission might feel that it had indeed realized the alchemist's dream of turning lead to gold; a greater amount of debt could result in a lower over-all cost of capital because the increased cost of common capital might not absorb all of the savings in interest resulting.\(^9\) The commission was persuaded as to the validity of this approach in determining whether increased revenues were warranted. It concluded that an over-all rate of return of between 6.3% and 6.5% presented a "zone of reasonableness"; it arrived at this "zone" on the basis of the following components of capital cost.\(^9\)

<table>
<thead>
<tr>
<th>Per cent of capital</th>
<th>Rate</th>
<th>Cost</th>
<th>Per cent of capital</th>
<th>Rate</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt capital</td>
<td>40%</td>
<td>3.00%</td>
<td>1.20%</td>
<td>45%</td>
<td>3.00%</td>
</tr>
<tr>
<td>Equity capital</td>
<td>60%</td>
<td>8.33%</td>
<td>5.30%</td>
<td>55%</td>
<td>9.00%</td>
</tr>
<tr>
<td>Combined cost</td>
<td>100%</td>
<td>6.50%</td>
<td>100%</td>
<td>6.30%</td>
<td></td>
</tr>
</tbody>
</table>

\(^9\) Id. at 146.
\(^9\) Ibid. This would follow since incremental debt could be added at somewhat more than 3% and displace higher cost common equity without increasing the cost of the remaining common equity enough to absorb the interest savings.
\(^9\) Id. at 149.
These rates of return, when applied to a rate base consisting of average capital obligations\textsuperscript{96} for the test period, yielded a range of required net operating revenues in dollars. The next step by the commission was to measure actual revenues, with certain adjustments, against this range of reasonableness. Despite the utility's protest against "regulation by adjustment," the commission included among its adjustments and added to actual reported net operating income for the test period an item for potential saving in income tax resulting from the larger interest deduction incident to a 45% debt ratio, over the actual interest deduction on a 23% debt ratio. Here, indeed, was another alchemist's touch since such taxes would of course have to be paid until the interest deductions did in fact exist. However, if the utility chose not to achieve the debt ratio found prudent and appropriate by the commission, the additional taxes paid or to be paid by the utility were said to be in the nature of an "unavoidable expense" subject to being disallowed; if so disallowed they would have to be absorbed by the common stockholder in addition to the decrease in return on that part of the common stock treated as debt in increasing debt ratio from an actual 23% to an assumed 45%.\textsuperscript{97} With this adjustment and certain others having to do with intrasystem service and profits, the actual net operating revenues were found to be above the "zone of reasonableness" and hence not in need of further increase.

The Michigan commission seemed persuaded that in the corporate capitalization, or "capital obligations," it had a satisfactory rate base which permitted it to use "consistent methods and deal with accurate and review-

\textsuperscript{96} Id. at 150. Adoption of "capital obligations" as a rate base by the commission was no doubt made possible by the requirement that the utility comptroller reports be submitted in evidence for an appropriate period. For its own purposes, as distinguished from rate-making purposes, the pertinent results appear from such reports to be the percentage of debt obligations to total capital obligations, consisting of debt, common stock, and surplus, and the net operating income to average capital obligations. Capital obligations may be substantially less than the so-called "investment" base consisting of net property and working capital because some of the "investment" may be carried by advance collections from subscribers for taxes and fees which due to a lag between collection and payment by the utility make funds available to the utility on an indefinite basis.

\textsuperscript{97} The commission noted that "with today's income taxes . . . each dollar of gross earnings that can be shifted from equity earnings to bond interest saves about one-half dollar of tax money which . . . means that substantially higher debt ratios are now more desirable than the lower ratios that may have been necessary in former years." Id. at 145. In an earlier rate appeal the Michigan Supreme Court had itself concluded that "the exclusion [from operating expenses] of an unnecessary element, such as avoidable taxes . . . ." was within commission rate-making authority. Detroit v. Michigan Pub. Serv. Comm'n, 308 Mich. 706, 717, 54 P.U.R. (n.s.) 65, 66 (1944). (Emphasis added.) The status of income taxes as an operating expense had been settled in Galveston Elec. Co. v. Galveston, 258 U.S. 386 (1922). Early recognition to the fact that "the capital structure of a company has a marked effect on the amount of income taxes paid, and hence should be considered in determining a reasonable rate of return" was given by the Wisconsin Public Service Commission in Barron County Tel. Co., 1933E P.U.R. 403, 419.
able facts.” It thought “the rate base should not be an estimate, subject to constantly changing price levels.” Consequently, when it was again confronted with fair value or “current investment cost” evidence in the Bell application for an increase in 1953, it made very short shrift of it, saying:

In utility rate increase proceedings a rate base is generally determined to which net income can be related. . . . “The use of the average capitalization eliminates the necessity of computing working capital and its many intricacies. It eliminates the necessity of a decision as to the inclusion of plant under construction. It further eliminates the problem of deciding whether all or a portion of the plant held for future use should be included or excluded.” The applicant has urged the commission to consider other elements in considering the rate base, as indicated hereinbefore. These items appear to be put forward to enable the commission to authorize higher charges to the public without causing the earnings expressed in percentage to be higher than the returns heretofore approved. We see no justification for beguiling the public by adopting a low relative rate of return and relating it to an unreal, speculative, mythical, and excessive rate base.

Relegated to making a case for increased earnings on the basis of an actual “capital obligations” rate base, the utility urged strongly that the risks of the telephone industry were such that a debt ratio of only 33% was warranted, even though electric and gas utilities might have ratios up to 50% and higher. This was an apparent attempt to counter the discovery which the commission thought it had made, namely that the over-all cost of capital can actually be less for a utility with a large amount of debt. The utility urged that “over-all cost of capital is about the same regardless of the capital structure, but that costs of specific kinds of capital do vary with the structure (the market behavior being such as to cause the weighted over-all cost to stay constant) and that, therefore, component costs developed on one structure cannot properly be applied to another structure.”

The utility further urged that a 40 to 45% debt ratio was not warranted because the telephone enterprise was more risky than other utilities and consequently required the protection of a debt ratio and accompanying earnings coverage of not more than 33%. But the commission was now disposed to test alleged earnings and debt ratio requirements by market analysis; such analysis indicated that reduction in debt ratio, while evidently designed to promote American bonds from Aa to Aaa without change in the over-all cost of money, might actually increase the over-all cost of money since equity money might advance in cost because of the accom-

99. Ibid.
100. Id. at 308, 310.
101. Id. at 317.
102. Ibid.
panying decrease in “leverage.”\textsuperscript{103} The commission thought “the facts quite definitely indicate that a 40 per cent ratio would not only give a lower cost, but would also provide a very adequate degree of safety and would maintain the credit of the system at a highly satisfactory level.”\textsuperscript{104} The commission adjusted actual reported net operating income upwards almost $1,000,000 for income taxes which would have been “saved” if a 40% debt ratio had been maintained.\textsuperscript{105} Again the return of the common stockholder was reduced by such theoretical tax savings plus the theoretical saving in interest on the segment of common equity treated as debt at 3.1%. It found that no reasons had been sufficiently developed for increasing the rate of earnings.\textsuperscript{106}

The brave words of the commission uttered in 1954 as to the virtues of a “capital obligations” rate base and of consistency in rate determinations were tempered in 1957;\textsuperscript{107} although noting that “the staff insists that the capitalization rate base includes all the capital provided by the investors in Michigan Bell Telephone Company,” the commission nonetheless now transferred its allegiance to an “investment” or net property rate base, including in the “base” substantial capital allocated from the corporate parent as funds available for loan to the subsidiary. The commission rather apologetically stated: “We are mindful that the rate base we have adopted exceeds the amount actually invested in the securities of the applicant but it does represent the applicant’s actual investment in plant used in providing telephone service in Michigan, \textit{without regard to the original source of such funds}.”\textsuperscript{108}

The base approved was some $45,000,000 above actual pro-rated capital obligations, a fact with important implications when it is considered that allowable dollars of net operating revenue are arrived at by applying a composite over-all rate of return percentage to the selected dollar rate base.\textsuperscript{109} The commission adhered to an assumed debt ratio of 40%, taking

\textsuperscript{103} Id. at 321. \textit{As described in} GRAHAM \& DODD, \textsc{Security Analysis} 556 (1951), “[T]he presence of a substantial proportion of senior capital, carrying a limited charge for interest or preferred dividends, permits the relatively small common issue to benefit from the earnings of a much larger capital fund.” Leverage is of course a much subdued operative factor in the high equity capital structures of the Bell system.

\textsuperscript{104} 5 P.U.R.3d at 322.

\textsuperscript{105} The commission said that “to assume a lower debt ratio [than 40%] for tax computations would constitute passing on to the ratepayers an avoidable expense and an unnecessary burden.” \textit{Id.} at 315.

\textsuperscript{106} \textit{Id.} at 326.


\textsuperscript{108} \textit{Id.} at 405. (Emphasis added.) A foundation for the transition was laid in rehearing the 1953 application for an increase. The result of an increase granted was carefully portrayed in terms of a rate of return on capital obligations and a rate of return on investment in net property; the latter base, containing as it did property carried by advance collections from subscribers, indicated the more modest rate of return resulting from the granted increase. Michigan Bell Tel. Co., 9 P.U.R.3d 321, 324 (1953).

into account the higher interest rates prevailing in 1957. It arrived at an earnings allowance for 60% common equity based on earnings-price ratios, making appropriate adjustments for the fact that the common equity rate was to be applied to book equity rather than the market values from which the ratios were drawn. The result was an over-all rate of 6.6%, however, not dollars necessary to service actual debt and common stock or to service actual total capital obligations assuming 40% debt. A composite rate of 6.6% applied to a rate base $45,000,000 greater than the capital obligations of the utility will obviously yield more dollars than will the component parts of that composite rate when applied to the lesser amount of capital obligations themselves. The commission was of course aware that the determination of a composite rate of return from a percentage allocation of capital obligations at appropriate rates for the types of capital and the application of this composite rate, not to total capital obligations but to a larger net property rate base, was simply a way of allowing more earnings for the actual common stock investment than indicated by the common equity rate selected to be composited with the interest rate. It had earlier said that a capitalization rate base (the actual capital invested) “appears fair and equitable to both the ratepayer and the investors. Its use insures the inclusion of every dollar invested in the company by its bondholders and its common stock owners”; it had also said in rejecting a fair value rate base that it saw “no justification for beguiling the public by adopting a low relative rate of return and relating it to an unreal, speculative, mythical, and excessive rate base.” It might have at least pondered the applicability of this comment to its 1957 procedure. Nonetheless, it must be said that the commission did adhere to its position that a 40% debt ratio and the accompanying savings in interest and income taxes must be taken into account, thus tempering the dollars of additional revenues deemed necessary.

By 1960 even the commission’s debt ratio position had been subjected to further reflection and was modified under the continuing and evidently persuasive arguments of the utility. For reasons which do not appear in the commission’s opinion, a property rate base including an allocation from the parent’s loan capital was not considered in 1960; instead, the utility submitted a fair value base and a net investment base consisting of net property at cost plus working capital. The commission staff urged a capitalization rate base with an assumption of 40% debt and 60% common

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110. Id. at 408.
111. Ibid. The determination of an over-all rate may be presented arithmetically as follows:

\[
\begin{align*}
40\% \text{ debt} & @ 3.15 = 1.26\% \text{ on total capital} \\
60\% \text{ equity} & @ 8.8 = 5.34\% \text{ on total capital} \\
\text{Composite} & = 6.60\% \text{ on total capital}
\end{align*}
\]

112. 5 P.U.R.3d at 308.
113. 20 P.U.R.3d at 407-08.
equity;\(^\text{115}\) the actual debt ratio was 26.4% and the equity 73.6%.\(^\text{116}\) By way of preparation for a change in position, the commission majority noted (1) that the Hope decision did not bind it to the use of any single formula or combination of formulae, (2) that rate-making involved the making of "pragmatic adjustments" and (3) that "it is the result reached not the method employed, which is controlling."\(^\text{117}\) The majority's pragmatic adjustments to commission staff proposals are an interesting response to utility persuasion.

The staff had again urged a 40% debt ratio and 60% common equity, with an allowance for current and imbedded interest costs, plus an allowance of earnings for the common stock based on studies of current earnings-price ratios of comparable investments; this resulted in a recommended over-all rate of return of 6.52% of capitalization; translated into dollars this represented about a 6% relationship to net property. The utility urged that it required 8% on net "investment" (net property plus working capital) to service its 26% debt ratio and 74% common equity. But the utility also took a new "hard" line that debt ratio was actually no concern of the commission's and that "no adjustment of any sort in federal income tax is proper." It took the position that "such an adjustment infringes on management's financial authority, makes the earnings of a reasonable return impossible, and results in a double disallowance . . . ."\(^\text{118}\) The utility asked for 8% on a net "investment" (net property plus working capital) of $588,000,000, but only $543,000,000 of this investment was carried by bondholder and stockholder capital; the remaining $45,000,000 of "investment" was carried by advance collections for taxes and other items.\(^\text{119}\) Thus the utility was actually asking for a return of 8.5% on total capital obligations. The commission staff, however, found that $543,000,000, divided into 40% debt and 60% common equity, could both attract capital from the public markets and be serviced with some $35,000,000 of net operating revenue, or at a rate of approximately 6.5% (taking into account current market trends in cost of money). Turning to the actual earnings of the utility and adjusting for wage increases and other items, it found some $36,000,000 of net operating revenue, before taking into account $1,000,000 in income taxes which would be saved by a 40% debt ratio; thus it found potentially available a net operating revenue of $37,000,000 or at the rate of 6.8% on capital obligations.\(^\text{120}\) Since net operating revenue "available" exceeded the utility's requirements, as indicated by market studies, no increase was recommended.

Nevertheless, a majority of the commission was convinced that some

\(^\text{115}\) Id. at 399-401.
\(^\text{116}\) Id. at 406.
\(^\text{117}\) Id. at 400.
\(^\text{118}\) Id. at 399.
\(^\text{119}\) Note 96 supra.
\(^\text{120}\) 32 P.U.R.3d at 398-99.
increase had to be granted and set about making the pragmatic adjustments necessary to justify an increase. They decided that a 35% debt ratio rather than a 40% ratio was now appropriate; the result was to reduce “available” present earnings by some $500,000 of income tax “saving.” The majority also decided that the entire property and working capital should be treated as though carried by bondholder and stockholder capital, thus requiring a return on some $45,000,000 of capital provided by subscribers to insure the common stockholder; including an increase in the over-all rate from the proposed 6.5% to 6.6%, the result was an estimated required increase in net operating revenues of some $1,900,000 and in gross operating revenues of some $4,000,000.121

A dissenting commissioner found the majority’s capitulation on the rate base unwarranted because it compensated the corporate parent on capital which represented ostensibly interest-free capital contributed by the subscriber. He found specious an argument that the utility was entitled to earn on such property because its corporate parent held other capital available for loan to its subsidiary; as he saw it, such capital, while being held available for the subsidiary, was meanwhile invested in interest bearing government securities; as the dissenter put it, “The company’s proposition that there are assets not represented by offsetting liabilities, seriously considered, impugns the accuracy of its own books and reports.”

As I have noted, increasing the rate base to which the rate of return was to be applied had the effect of raising the proposed return for the common stock as arrived at from market studies. The majority, however, raised the composite rate still further by decreasing the recommended debt ratio from 40% to 35%. Since this step also decreased the amount of “avoidable” taxes, the over-all effect was two-fold: (1) to increase the dollars of net operating revenue deemed necessary; (2) to decrease the amount of net operating revenue actually or potentially available from current rates (potentially to the extent of tax and interest savings from substituting bonds for debt). The dissenter (and the intervening state attorney general) noted that, applying the determined rate of return to capital obligations rather than to property, no additional revenues were required even on the basis of the utility’s actual debt ratio. The dissenter urged the use of a 40% debt ratio as in previous commission cases, dismissing as thoroughly unrealistic the utility position that “risks involved in the telephone business are greater than risks in other regulated utility industries such as electric, and are on a par with risks in manufacturing.”

121. Id. at 403. Dollars of net operating revenue not representing interest cost translate into more than two dollars of gross operating revenue to permit payment of corporate taxes at 52%.

122. Id. at 406-08.

123. Id. at 409.
V.

We have examined the problem of public utility debt ratio from the point of view of four different commissions. The Securities and Exchange Commission, directly concerned as it has been with investors' interests perhaps more than with consumers' interests, was a driving force in seeking to bring down the high ratios of debt and senior securities and in increasing the accompanying slender coverage for fixed charges which had been the hallmark of public utility holding company systems in their heyday. We have seen that Commission's original objectives tempered as operating company plant accounts were cleared of write-ups and holding company control was either eliminated or economically and technically rationalized. We have seen the impact on that Commission's thinking of favorable power rates negotiated for government projects through power plants built with a large percentage of low cost debt. The prophecies of a spokesman for the electric industry that there would be a stabilization of debt and preferred stock ratios at from 60% to 70% have to a large degree been realized during the past decade.124

In the rate regulation work of the Federal Power Commission, especially in regard to the natural gas industry but also involving some electric enterprises, we have seen the Commission stand firmly for a cost of capital method of determining rates, with full recognition of the savings to consumers implicit in a substantial percentage of debt in the utility capital structure. Primarily it has had to check an industry impulse to overcapitalize itself with senior securities; its task to a substantial degree has been to make sure that the savings in taxes and capital costs from a capitalization containing substantial debt were shared with the consumer through reasonable limitations on the return inuring to the common stock. This it has done through the utilization of market earnings-price data in fixing the appropriate return on common stock. There has been rare need and no inclination on the part of this Commission to assume debt ratios larger than actual for the protection of consumer interests.

The Federal Communications Commission, on the other hand, has had to deal with a segment of public utilities whose largest company has

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124. A tabulation prepared by the Louisiana Public Service Commission staff, reproduced at 26 P.U.R.3d 85 (1958), indicated the following as of December 31, 1956:

<table>
<thead>
<tr>
<th></th>
<th>Long-term Debt</th>
<th>Preferred Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privately-owned Electric Utilities</td>
<td>50.5%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Natural Gas Utilities</td>
<td>59.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Moody's 24 Electric Utilities</td>
<td>50.1</td>
<td>12.2</td>
</tr>
<tr>
<td>Dow-Jones 15 Utilities</td>
<td>51.3</td>
<td>9.8</td>
</tr>
<tr>
<td>10 Leading Electric Utilities in U.S.</td>
<td>51.0</td>
<td>12.2</td>
</tr>
<tr>
<td>3 Largest Electric Utilities in U.S.</td>
<td>51.0</td>
<td>12.8</td>
</tr>
<tr>
<td>3 Leading Southern Electric Utilities</td>
<td>53.0</td>
<td>9.0</td>
</tr>
<tr>
<td>5 Louisiana Electric Utilities</td>
<td>51.8</td>
<td>14.5</td>
</tr>
</tbody>
</table>
bitterly resisted all attempts to orientate its financing towards the general public utility approach to the use of debt; the latter's approach has been so conservative as to give it survival assurance in an economic gale of almost maximum intensity. While this Commission has made some of the basic financial market studies and recommendations with respect to optimum debt ratios (now widely used by state regulatory bodies), it has itself had rare occasion to put into effect the results of its studies in published opinions. This has stemmed from the fact that only a limited portion of the communications network of the Bell system is deemed interstate and hence subject to direct rate regulation by the Commission. Inquiries into the rate structure of these operations have usually terminated with voluntary rate reductions by the American Company without progressing through opinion and order fixing a general rate of return based on cost of capital studies. On the record at least, the Commission has rarely had to make assumptions in Bell cases as to appropriate debt ratios and as to whether common stockholders or subscribers shall absorb the costs in high equity costs and taxes of low debt ratios. Thus the conclusion of the Commission's elaborate studies in the late 1930's resulted only in a cryptic statement in the 1940 annual report that the “American . . . Company reduced rates on long distance telephone calls . . . resulting in an estimated annual saving to the public of $5,300,000. This reduction was affected as a result of conferences . . . without the necessity of legal proceedings.” Again in 1959, the fruits of “continuing studies of interstate operating results” which “indicated need for rate reductions” were reported in the 1959 annual report to the effect that “discussions resulted in an agreement by the Bell system to file revised tariffs with the Commission reducing rates for interstate long-distance telephone calls by about $50 million annually.” That a full opinion and order on the long distance operations of the American company would be useful and interesting on the issue of debt ratios is indicated by the views on that subject which the Commission has expressed in rate determinations involving other communications carriers. Thus, in 1959, when the American company voluntarily reduced rates $50,000,000 on some operations, the Commission made a formal rate determination for certain other international communications carriers, in the course of which it announced:

[It appears to us that in fixing a rate of return we must keep in mind the capital structure which a regulated carrier chooses to maintain as against that]

125. Cases are collected in Rose, Cost of Capital in Rate Regulation, 43 Va. L. Rev. 1079, 1084 (1957).
which it could prudently maintain in order to balance properly the requirements of safety of investment, stability of dividends, and availability of capital, and an obligation to maintain that rate structure which will, consistent with the foregoing, result in minimum requirements from the ratepaying public. Accordingly, we do not believe it is proper to compare the return on equity of RCAC, which chooses to maintain a 100 per cent equity status, with the return on equity of other public utilities which raise substantial amounts of their capital requirements through debt financing, especially since we have found that RCAC can support at least a 30 per cent debt structure at an embedded interest rate of not more than 4 per cent. The effect of such a capital structure on return on equity as against the return on a 100 per cent equity capital structure can be seen from the following. Assuming a rate base of $15 million and net income before federal income taxes of $3 million the net income after computed taxes would be $1,440,000. This would result in a return of 9.6 per cent on a 100 per cent equity capitalization. Assuming a 30 per cent debt ratio at 4 per cent embedded interest the amount needed to service the debt would be $180,000. After adjustment of computed tax, $1,353,600 would be left for a return on $10,500,000 of equity, or a return on equity of 12.9 per cent. The overall return would be 10.2 per cent. In fixing our overall return herein for RCAC we shall, as we have stated above, fix a return in relationship to that of other regulated public utilities with due account for differences on earnings record, future prospects, relative stability, risk, and comparative capital structure. The overall return allowed RCAC should, therefore, be considered in relation to the over-all return allowed other utilities and not the earnings of such utilities on their equity capital only.

It seems not unlikely that, had the interstate operations of the Bell system been subjected to the same degree of regulatory study and deliberation in adversary proceedings before the Federal Communications Commission as have the intrastate components of the Bell system before state regulatory commissions, a debt ratio of 45% or even 50% would have achieved such respectability and acceptance that the Bell system could not have succeeded in bringing its system debt ratio down from its post-war high of 50% to the present 35%. Adversary proceedings at the interstate level were successfully avoided, however, and no such relationship of leadership was developed by the Federal Communications Commission in telephone regulation.130

From the sampling of telephone regulation in Michigan during the past decade and a half one sees the relatively uninhibited and variegated resistance which a Bell system company can rally in countering regulatory efforts to achieve the savings resulting from maintaining debt ratio above the actual debt ratio of either the individual utility or the Bell system. It also should be noted that the Michigan commission, as other state commissions elsewhere, rarely succeeded in keeping the rate base as actual capital obligations and the rate of return as a truly differentiated cost of capital return so that the potential tax and interest from the higher debt ratio could in fact be harvested for the subscriber.

130. Such a relationship was developed between the FCC and the state commissions in regard to natural gas regulation, and, to a lesser extent, in regard to electric regulation.
In seeking the rationale behind the resistance of the Bell companies, state commissions no doubt may speculate as to whether the reason is really to be found in the usual utility argument that the telephone industry, being more risky than electric and gas utilities, must be better prepared to weather hard times than those industries. A commission might ponder whether it is really urging that it must keep its debt or creditors' claims so low and property and earnings coverage so high as to practically eliminate the threat of a bankruptcy or reorganization proceeding. If this be so, the commission might properly ask whether the management of a utility is entitled to hedge against the threat of depression and its hazards to whatever extent, in their judgment, will give the enterprise "reasonable prospect of survival," even though the cost may be substantial to subscribers in higher cost of equity capital and payment by the utility of "avoidable" taxes.131

On the other hand, a commission might question whether a regulatory body should force savings in federal taxes on a utility when our total tax bill must be paid in any event and when the result may actually be tax shifting rather than tax saving.132 How much distortion in proper tax incidence results from paying substantially more federal taxes through telephone bills than through other utility bills? Is the resulting distortion too high a price to pay for the financial security which management finds necessary for the "bad times which will follow the good"?

Finally, would it be uncharitable for a state commission to speculate that a 65 to 75% widely-held common equity interest, such as the Bell system finds necessary, may also render management practically impregnable to "control raids" by outside groups at any time, in addition to furnishing

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131. "There are undoubtedly many situations in which the consuming public would be better off if return were to be reduced to an otherwise reasonable amount, regardless of the fact that such a re-adjustment might necessitate a corresponding reorganization of the capital structure of the utility. . . . Although the regulatory authority may decide that, for companies of these characteristics, protecting the company's credit will result in more ultimate harm than good to the consuming public, it should be realized that this requires a definite decision that the corporation's ability to secure additional common stock capital, and in some cases, capital of any sort, is not as important as lower rates to the consuming public." FCC, op. cit. supra note 59, at 31.

132. "The fundamental assumption of the advocates of heavy debt financing is that avoidance of federal taxes is a basic obligation that utilities and regulatory bodies have to the ratepayer and that the protection of stockholders' interest should be subordinated to this obligation. . . . Thus the will of Congress could be subverted and corporate taxes avoided. This seems to follow logically from the tax avoidance doctrine. . . . Tax avoidance is an individualistic concept hardly suitable as a guide to public policy. When practiced on a large scale, it becomes tax shifting, which would merely change the type of tax levy, not the total collected, and is therefore deceptive as a real boon to the public. . . . If practiced by utilities at the behest of commissions, it would constitute a refusal to act as tax collectors for the federal government. Such irresponsible policies are not in the public interest. They would probably also result in further deficits, a general refusal of the public to pay higher taxes, and further inflation." Morton, Structure of the Capital Market and the Price of Money, 44 AM. ECON. REV. 451-52 (1954).
insurance against loss of control in *bankruptcy or reorganization*; a state commission might well ponder whether subscribers should be asked to subsidize such a result, seemingly beyond management's legitimate concern with protecting the enterprise itself against financial disaster. It might wonder whether issues such as these can ever be adequately ventilated in the "piece meal" consideration of state commission regulation or whether they must await the broad-gauged analysis seemingly only possible under pervasive federal regulation.