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"COST OF MONEY" AS THE DETERMINANT OF PUBLIC-UTILITY RATES

*Harold M. Somers**

The traditional method of setting public utility rates is to arrive at a rate base and a rate of return on that base, determine what earnings result from applying the rate of return to the rate base, and then set utility rates that will result in those earnings. There has been much controversy over the proper rate base and relatively little over the "going" rate of return. In recent years, however, the determination of the rate of return has been opened up to a fuller consideration of the "cost of money": what the company must pay to obtain the money to finance its investments. This emphasis on "cost of money" is traceable in part to the attempt by regulatory bodies in some states to keep the rate base inviolate and allow disturbing elements like inflation to express themselves—if they can—in the rate of the return via the "cost of money". There have been some startling consequences of this development, consequences which may lead to a complete revision of the technique of administrative agencies in setting utility rates.

In New York, the Public Service Commission has retreated to a strict cost basis thus virtually eliminating the problem of valuation. Since the resulting revenue may be inadequate under present conditions if the rate of return is limited to, say, 5%, the expedient of modifying the rate of return rather than the valuation of property has ostensibly been employed. One of the tasks of the agency is now supposed to be that of ensuring sufficient revenue to prevent a flight of capital from the public utilities and to attract sufficient capital for necessary improvement and expansion. Thus the prospective investor becomes the key figure and the "cost of money", broadly interpreted, is the crucial item of evidence. The emphasis throughout is on future prospects and how they influence a potential investor. Although "cost" is used as the rate base there is actually a concession made to replacement value in the broadest sense—the value of replacement of the capital funds necessary to the business.

The most recent example in New York is the decision of the Public Service Commission on the motion of the New York Telephone Company for approval of increases in rates and charges. The decision, adopted August 5, 1954 denied the company's motion.[1] Material increases had been approved in 1930,[2] reductions

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1. Case 16548. *Re: New York Telephone Company,* 5 PUR 3d 33 (August 5, 1954). State of New York Public Service Commission. Page references herein are to the separate print issued by the Commission.

2. Case 6177. *Re: New York Telephone Company,* Ann. Rep. Pub. Serv. Comm. 213, PUR 1930 C, 325.

ordered in 1936,[3] moderate increases approved in 1950,[4] and further increases denied in 1951,[5] with some increases allowed subsequently to take account of specified increases in taxes and wages. The Commission's current decision is now up for review before the Appellate Division, Third Department, a rehearing having been denied by the Commission.[6]

The methods of rate-making that are employed and some of the resulting problems will be reviewed in the next five sections of this paper. The potential significance of the "cost of money" approach for future rate regulation will then be indicated.

1. Original Cost v. Reproduction Cost

The first task is to find a rate base against which to apply an appropriate rate of return. In its sharpest form, the conflict is between "original cost" and "reproduction cost." Must the utility commission take account of reproduction cost and other reflections of price changes? May it ignore reproduction cost in determining the rate base if the governing statute requires the commission to take account of "value" of property in setting rates? Where the term "value" appears in this way the companies have argued that current market value or reproduction cost must be considered by the commission. A particularly strong case is made for this interpretation in New York where the statute uses "value" for telephone companies but not for electric and gas utilities. Section 97 of the Public Service Law, covering telephone and telegraph companies, states in part:

> . . . the commission shall, with due regard, among other things, to a reasonable average return upon the value of the property actually used in the public service and to the necessity of making reservation out of income for surplus and contingencies, determine the just and reasonable rates . . .[7]

3. Case 8230. *Re: New York Telephone Company,* Ann. Rep. Pub. Serv. Comm. 529, 14 PUR (NS) 443 (1936).

4. Case 14131. *Re: New York Telephone Company,* Ann. Rep. Pub. Serv. Comm. 373, 84 PUR (NS) 267 (1950).

5. Case 15235. *Re: New York Telephone Company,* Ann. Rep. Pub. Serv. Comm. 399, 91 PUR (NS) 231 (1951).

6. The company's petition contended that the Commission should have taken into account the current value of property owned by the utility; and that the Commission violated the Public Service Law by using a base consisting of original cost less depreciation and refusing to recognize "replacement cost" figures. 54 Pub. Util. Fort. 843-844 (1954).

For a discussion of telephone cases prior to 1951 see Rose, *The Bell Telephone System Rate Cases,* 37 Va. L. Rev. 699 (1951). For more recent reviews, see Rose, *The Hope Case and Public Utility Valuation in the States,* 54 Colum. L. Rev. 188 (1954) and Bates, *Telephone Rate Case Developments,* 54 Pub. Util. Fort. 412 (1954).

7. A similar provision is contained in Section 49 covering railroads. Section 72 covering electric and gas utilities refers to "capital actually expended."

Applying one of the standard rules of statutory construction, the apparently deliberate distinction in terminology between the telephone and other statutes is argued as indicating an intention to give telephone companies a special standard of valuation. The Commission, however, applies a standard of reasonableness to the intent of the Legislature:

> It is inconceivable, at least to this Commission, that the Legislature of this State intended that telephone rates should be fixed at any different standard than those of electric, gas or water utilities.[8]
>
> * * * * *
>
> We are unable to decipher any occult or hidden intention of the Legislature to set up any different standards of regulation for telephone companies than for other utilities. What the Legislature was clearly intending to do was to provide a test which, on its face, met all constitutional requirements.
>
> The arguments advanced show no basic reason why the telephone industry should receive more favorable treatment in times of expanded prices and less favorable treatment in times of decline of prices than other utilities. In fact, because of the volatility of the business (the company urges on us strongly that it possesses this characteristic to a far greater extent than the electric companies), the reasons for a fixed rather than a varying rate base are even stronger.[9]

The term "value" suffered a similar fate in an earlier case. In a brief filed with the New York Public Service Commission in 1951, the New York Telephone Company argued very forcefully that the Commission should consider reproduction cost in setting rates.[10] The U. S. Supreme Court in the *Hope Natural Gas* Case in 1944[11] had virtually overruled its 1898 decision in *Smyth v. Ames*,[12] which had required the consideration of "fair value" in setting the base in order to meet the constitutional standard of due process. The Company nevertheless argued that since the New York statute requires consideration of "value" the Commission must still accept evidence pertaining to value, including reproduction cost. In other words, the company argued, the Supreme Court did not preclude consideration of "value" where the statute required it but merely established that the end result had to be

8. Case 16548, *supra*, note 1 at 13.
9. *Id.* at 17.
10. "Memorandum in Support of Offer of Proof." Case No. 15235 *Re: New York Telephone Company*. New York Public Service Commission (Typescript April 26, 1951).
Another approach is to use trended original cost, which has been held pertinent to a determination of reproduction cost in Illinois. *Re: Central Illinois Electric & Gas Company*, 6 PUR 3d 108, 114 (1954).
11. *Federal Power Commission v. Hope Natural Gas Co.*, 320 U. S. 591 (1944).
12. *Smyth v. Ames*, 169 U. S. 466 (1898).

just and reasonable regardless of the method used to achieve it. The Commission rejected the telephone company's offer of evidence of reproduction cost but indicated that evidence on inflation was acceptable on the question of rate of return.[13]

The Commission has remained adamant on the question of original cost. It has said:

> The Commission refuses to depart from its now well established practice of fixing rates on the basis of the original cost of the Company's property dedicated to the public use. It rejects the claim of the Company that rates should be fixed upon estimates of the present cost to reproduce the Company's plant, or estimates of its "fair value."[14]

Just how strict this policy is may be indicated from a case involving a gas company. In a memorandum in support of offer of proof before the New York Commission in 1953, the Pennsylvania Gas Company argued, not for the use of detailed evidence of reproduction cost as the rate base, but merely for the submission of evidence indicating the original cost adjusted for certain overall price trends.[15] Such information, it felt, would be helpful in the Commission's consideration of proper rate of return, if for no other purpose. This evidence was rejected by the Commission.[16]

The Public Service Commission does not deny that it must take account of changing economic forces but it insists that it must do so only to the extent of ensuring a certain degree of stability in the dollar return, not in the real return (i. e. a dollar return that is high enough to allow for inflation). The Commission insists that the investor in public utility shares anticipated the former rather than the latter when he made his investment.

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13. Case No. 15235. *Re: New York Telephone Company,* New York Public Service Commission, October 3, separate print p. 29 (1951). The District of Columbia commission has treated the factor of inflation as "one of the many intangibles affecting the choice of rates within the reasonable range set by the factors more relevant to the determination." *Re: Chesapeake & Potomac Telephone Company,* PUC No. 1812/56, Formal Case No. 430, Order No. 4096 (July 29, 1954), 54 PUB. UTIL. FORT. 610 (1954).

14. Case No. 15235. *Re: New York Telephone Company,* New York Public Service Commission, separate print p. 48, 49 (1951). The Delaware Supreme Court has recently indicated that reproduction cost might be given "substantial" weight in setting the rate base. *Re: Diamond State Telephone Co.,* 54 PUB. UTIL. FORT. 392, 393 (1954). For some indications of a trend in the direction of replacement cost see 54 PUB. UTIL. FORT. 104-105 (1954).

15. "Memorandum in Support of Offer of Proof." Case No. 16108. *Re: Pennsylvania Gas Company,* New York Public Service Commission, (Typescript March 23, 1953).

16. "Brief for Pennsylvania Gas Company." Case No. 16108. *Re: Pennsylvania Gas Company.* New York Public Service Commission. (Typescript November 9, 1953).

The Commission says:

> Lest we be deliberately misunderstood, it should be made abundantly clear that just as we cannot disregard the economic realities of our daily business life, so also in a rate case, we must in like manner consider the cumulative effect of current economic forces upon the company whose rates we are fixing. Certainly the investor considers these before committing his money to the enterprise. . . .
>
> In the case of the American Telephone & Telegraph Company many of its million and a quarter stockholders have undoubtedly been attracted to it by reason of the past and expectation of the future continuance of the $9 dividend. This fact has been very effective in aiding the company in its tremendous job of financing since the last World War.
>
> . . . [W]ell informed [these investors] are on the matter most vital to them, namely that the past record of the company offers the prospect of a continued annual payment in the same number of dollars. There appears no basis for the argument that they anticipated double that number of dollars because of the diminution in purchasing power.[17]
>
> * * * * *
>
> In determining the value of a telephone company's plant, we cannot use the standards of competition in the industry because these do not exist. There is, however, another standard of competition and that is competition in the money market for capital. If the rates fixed are too low and the income is insufficient, there will be a flight of capital from the telephone industry to other types of investment. The converse is equally true. "Value" as used by the Legislature is the end result and does not, as contended by the company, constitute the point of departure.[18]
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> * * * * *
>
> No regulation can be sound or effective nor can it be fair to the utility or to its customers if made in a vacuum. Nor can it ignore the economic facts of life such as the trends of business,

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17. See Case 16548, *supra,* pp. 21-22. The California commission has voiced similar sentiments. See 54 PUB. UTIL. FORT. 544 (October 14, 1954).

18. Case 16548, *supra,* note 1 at 18.

Cf: "In order to keep utilities healthy and enable them to provide the service demanded by the public, they should be entitled to such a return as to enable them to attract capital for the natural growth that utilities must have." *Re: Southwestern Bell Telephone Company,* (Illinois Commerce Commission) 6 PUR 3d 41, 44 (October 20, 1954).

Arkansas has stated that "the basic test of an adequate return for a public utility is the cost of servicing and attracting capital to the industry." *Re: Southwestern Bell Teleph. Co.,* (Ark. Pub. Serv. Comm.) 2 PUR 3d 1, 9 (1953).

North Carolina allowed an increase in rate of return of a small telephone company from 3.02 to 6½ per cent where the company was "badly in need of additional capital in order to improve and expand its telephone plant" and there was evidence that the increased rate of return was necessary in order to attract capital. *Re: Albemarle Teleph. Co.,* (N. C. Pub. Ut. Comm.) 2 PUR 3d 30, 32 (1953).

> of prices, or of the national tax structure. It seems, however, that the company asks this Commission to go one step further and to make a determination not alone in the light of the factors which affect the business world but to adopt a regulatory process which insures it and its equity investors (not those from which it borrows money) a complete protection against any loss which economic conditions may threaten. To put it another way, the company's position goes to the extent of asking a regulatory body to insure that equity capital devoted to a utility enterprise shall be forever preserved in its original integrity, irrespective of the tax policies of government or fluctuations in economic conditions. It asks for its stockholders not only what is virtually a bondholder's assurance of steady income, with more than twice the bondholder's annual percentage, but also a hedge against inflation which is beyond the bondholder's dreams.
>
> This is not our conception of the purpose of regulation nor, admitting for the sake of the argument that such contemplated legal power exists, do we believe such a result possible. Nowhere in modern economics do we find a case where such an objective has been permanently maintained. We realize that styles change in investments as well as human attire. We appreciate that a utility must earn an adequate amount to make its securities attractive in the current money market. When that test has been met our obligation in that respect has been discharged. It is true that if inflation became completely uncontrolled all the standards of the past would become outmoded and some new standards would be required if the extinguishment of capital savings is to be prevented. That point, however, has not been reached in this country.[19]

In the above statement, the Commission rejects most emphatically the contention that the investor in utility equities is entitled to protection against inflation. It also says:

> The company . . . contends . . . that the investor in utility securities is entitled to some special protection against the loss in the purchasing power of his dollars committed to the enterprise. This contention, of course is made only as to the equity investor.
>
> . . . this contention is completely rejected. The causes of inflation with the resultant decline in the purchasing power of the dollar are not the result of the processes of regulation but of national if not world-wide, economic conditions . . .[20]
>
> We find nothing in our statutes, or the reported decisions, which guarantees to the investor in utility equities insurance against the results of economic forces or even the political policies of any national administration.[21]

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19. Case 16548, *supra,* note 1 at 22-23.
20. Case 16548, *Id.* at 20.
21. Case 16548, *Id.* at 21.

The crucial question to be decided, however, is whether current prices must nevertheless be considered where the governing statute requires consideration of "value".

The logical problems involved in setting a "fair value" rate base are apparent. The Supreme Court has said that "rates cannot be made to depend upon 'fair value' when the value of the going enterprise depends on earnings under whatever rates may be anticipated."[22] In the ordinary sense, "fair value" must depend on future earnings. Yet future earnings are to be determined on the rate base. Thus it becomes impossible to set a "fair value" without knowing the rates, and yet the rates are to be determined by taking account of the "fair value" base. The same logical problems do not arise where "fair value" is narrowly construed to mean reproduction cost or original cost adjusted for general price changes. Prevailing prices, specific or general, can then be used.

The Tenth Circuit has concluded that "fair value" cannot be used as a rate base: "In other words, fair value is the end product and not the means of the rate-making process."[23] This conclusion is fully consistent with the "flight of capital" doctrine under which the emphasis is on setting earnings at an appropriate level rather than on setting an appropriate base. The earnings that prevent a flight of capital will yield a certain value for the property but that value may not be a "fair" one from the point of view of existing stockholders. As far as the constitutional standard is concerned, "Fair value is no longer deemed an essential ingredient of an economic rate base for rate-making purposes."[24] Where the governing statute requires consideration of "value", however, the problem cannot be disposed of so easily.

In setting its rates the commission is limited by substantive as well as procedural due process. In the exercise of the state's police power it is bound to determine rates that are "just and reasonable." Does a "just and reasonable" rate necessarily have to be based on investment cost, fair value or other specific base? The Supreme Court of Utah has answered this question in the negative. The court has said:

> The statute cannot be construed as requiring the Commission to fix utility rates on a value rate base. The Legislature gave full rate-making power to the Commission subject only to the

22. *Federal Power Commission v. Hope Natural Gas Co.*, 320 U. S. 591, 601 (1944).
23. *Cities Service Gas Co. v. Federal Power Commission*, 155 F. 2d 694, 701 (10th Cir. 1946), *cert. denied*, 329 U. S. 773 (1946).
24. "*Federal Power Commission v. Natural Gas Pipeline Co., supra; Hope Natural Gas Co., supra; Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U. S. 581 (1945)"; *Cities Service Gas Co. v. Federal Power Commission, supra*, note 23 at 701.

> limitations of procedural due process and the requirement that the rate established be just and reasonable. This standard 'just and reasonable' has been held to be the same as the constitutional standard. Federal Power Commission v. Natural Gas Pipeline Co. (1942) 315 U. S. 575, 86 L. ed. 1037, 42 PUR (N. S.) 129, 62 S. Ct. 736. At the time of Smyth v. Ames a rate could not be just and reasonable in the constitutional sense unless it permitted a fair return on fair value. This concept has, as pointed out above, been overruled. It would be contrary to common sense to hold that the legislature meant 'just and reasonable' only as defined by the courts at the time of Smyth v. Ames and to hold that the legislature would, in order to authorize the Commission to use prudent investment, be required to reenact the statute saying that it meant 'just and reasonable' as that term is construed today. To the contrary, it must be assumed that the legislature contemplated that the concept of that which is 'just and reasonable' might change with social trends.[25]

Does this emphasis on "just and reasonable" rates open the field wide to an almost unlimited use of discretion by the commission? Is there no need for the commission to bother with a rate base and rate of return; can it go directly to a "just and reasonable" utility rate structure? It will be indicated in the concluding section of this paper that considerable authority can be garnered for an affirmative answer to these questions.

It may be that the entire issue of reproduction and original cost is of dwindling significance until the next major inflationary spurt. The difference between original cost and reproduction cost decreases as more and more plant and equipment is replaced at inflated prices. The New York Public Service Commission points out in the current New York Telephone case:

> The company's own evidence established that the ratio of reproduction cost new to actual cost was declining. This, of course, would be true for many reasons: the flattening out of the price curve, the continuing retirement of old property built at low cost and large additions at current prices.[26]

This is a general situation, as may be illustrated further in the case of Florida:

> Practically all of our public utilities have expanded their facilities to such an extent during the past five or six years that the

25. *Utah Power and Light Co. v. P. S. C.*, 107 Utah 155, 152 P (2d) 542 (1944). By way of contrast it may be noted that the Indiana Commission recently valued all property actually used and useful for the public convenience at its current fair cash value. *Re: New Lisbon Telephone Co.*, No. 25201, July 8, 1954. 54 Pub. Util. Fort. 614 (1954).

26. Case 16548, *supra*, note 1 at 14.

> vast majority of the utility plant now in service has been installed at more or less inflated prices. Consideration of reproduction cost new under such circumstances would be of little benefit to the utilities at the present time. On the other hand, if we should enter upon a prolonged period of depression with resulting deflated costs, a rate base predicated upon reproduction cost new then would place most Florida public utilities in serious jeopardy.[27]

The trend away from valuation of property to concentration on the setting of a just and reasonable return carries with it many important legal implications. The older constitutional emphasis was on the narrow question of confiscation of property; the newer emphasis is on the broader question of the use of the police

27. *Utility Regulatory Climate in Florida,* 54 PUB. UTIL. FORT. 567, 568-9 (1954).

Expansion at current costs presents new problems. The constantly rising rate base makes the regulatory lag of serious importance. In Massachusetts, the court recently recommitted a case to the regulatory body where the rate of return when set was 6.313% but was tending toward the 5% level as the expansion program progressed, the court having previously set 6.23% as the "line where confiscation begins" [see note 28, *infra*]. *New England Telephone & Telegraph Co. v. Department of Public Utilities,* ___ Mass. ___ 121 N.E. 2d 896, 906-907 (1954). The Maryland Public Service Commission has similarly tried to overcome the effects of the regulatory lag by calculating the permissible net income on the basis of a 6 per cent return where it found a return of 5.75 per cent to 6 per cent to be reasonable for a telephone company. *Re: Chesapeake & Potomac Telephone Company of Baltimore City,* 5 PUR 3d 161, 170 (1954). Kentucky has acted similarly. *Re: Southern Bell Tel. & Tel. Co.,* (Kentucky Public Service Commission) 6 PUR 3d 18, 24 (Sept. 1, 1954); as has Utah. *Re:Mountain States Teleph. & Teleg. Co.,* (Utah Pub. Serv. Comm.) 2 PUR 3d 75, 90 (1953).

Arkansas permits the latest substantiated expenditures for property, including plant under construction and investment in materials and supplies, particularly in a period of inflation when the company has experienced an attrition of earnings. It does not, however, permit a projection into the future: "The inevitable delay required to process an application for a revision in rates may cause some inequities resulting from operating changes occurring in the interim . . .. We do not believe that we can eliminate these inequities by guessing about future earnings which may affect Southwestern's operations. The errors inherent in speculative estimates are likely to far outweigh the equities which may be accomplished." *Re: Southwestern Bell Teleph. Co.,* (Ark. Pub. Serv. Comm.) 2 PUR 3d 1, 8-9 (1953).

Colorado likewise rejects projection: ". . . the setting of a rate base on a speculative figure for plant valuation when such improvement would be made in the future, with a compensatory rate of return predicted [possibly "predicated"] thereon, is rate making in reverse." *Re: Mountain States Teleph. & Teleg. Co.,* (Colo. Pub. Ut. Comm.) 1 PUR 3d 129, 144 (1953). Nevertheless, the commission tries to take cognizance of the problem of attrition by setting a valuation which "will provide some compensation for the attrition in the company's earnings" and it says that "in arriving at a rate of return of 6.69 per cent . . . the commission has had in mind this question of attrition." *Id.* at 146.

The Federal Power Commission has used a test period but has refused to use forecasts: "Our settled policy and practice, and we believe the only proper policy and practice, is to test rates for the future on the basis of actual operating experience of a representative period of time and to adjust that experience for known changes which have occurred or will occur. We have consistently refused to adjust rates on the basis of forecasts which are inherently uncertain and speculative." *Re: Northern Natural Gas Company,* (Federal Power Commission) 95 PUR (NS) 289, 298 (1952).

power.[28] The burden of proof on the utility is very different in the two cases, as the telephone company and many other utilities have discovered. Can the entire problem be avoided by emphasis on "flight of capital" rather than rate base?

2. THE FLIGHT OF CAPITAL

The next step after establishing a rate base is to determine the rate of return on that base. The resulting computation *(rate of return* x *rate base)* yields a sum available for the suppliers of capital, both equity and debt capital. Existing debt capital has a known fixed return. How much money should the suppliers of equity capital receive? The *Hope* case said:

> the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, as to maintain its credit and to attract capital.[29]

This is the "flight of capital" or the "cost of money" approach to the determination of a rate of return.

A recent New Mexico case which follows the New York commission very closely indicates the limit that must be adhered to in giving weight to the flight of capital:

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28. See the article on *Public Utilities* by Hon. Philip Halpern in NEW YORK STATE LEGISLATIVE ANNUAL 1947, 223, 224. Massachusetts uses the confiscation doctrine as a limiting principle in setting the rate of return. It has labelled an overall rate of 4.887% as "confiscatory and unlawful" and has set 6.23% as "the line where confiscation begins." *New England Telephone and Telegraph Company v. Department of Public Utilities,* 327 Mass. 81, 97 N. E. 2d 509, 517 (1951). Similarly, it has said that the adoption of a debt ratio of 45% was not "unlawful or confiscatory," the actual ratio being 62.1% and the company requesting 35%, *id.,* at 515. See Rose, *The Bell Telephone System Rate Cases, supra,* note 6 at 718 n. 68, for earlier cases.

In a more recent case, the Massachusetts court affirmed its refusal to prescribe any theory or method for determining the rate base in absence of proof of confiscation. *New England Telephone & Telegraph Co. v. Department of Public Utilities,* ___ Mass. ___, 121 N. E. 2d 896, 904 (1954). North Dakota has considered a return of less than 4½% on money prudently invested inadequate. *Re: Northwestern Bell Teleph. Co.* (N. D. Pub. Serv. Comm.), 2 PUR 3d 93, 95-6 (1953).

The emphasis on "police power" aspects is illustrated in a recent case in Ohio where the commission said:

> It is the opinion of this commission that it is not so much what a utility company is legally entitled to earn that is involved in the determination of reasonable return, but rather what the said company must earn if it is to be able to continue that adequate utility service which its customers have every right to enjoy and which the law of Ohio assumes said utility company will render. *Re: Mt. Vernon Teleph. Corp.* No. 24, 242, October 22, 1954. 54 PUB. UTIL. FORT. 847 (1954).

29. *Federal Power Commission v. Hope Natural Gas Co.,* 320 U. S. 591, 603 (1944).

. . . while the return for the utility should be sufficient to enable it to obtain funds in the capital markets in competition with other businesses of like risk, that return should be no greater than necessary for that purpose.[30]

The California commission is even more conservative:

. . . [E]arnings-price ratios merely reflect the prospective investors' appraisal of the market value of stock and, as such, are influenced by prevailing market and economic conditions and the individual requirements of the purchasers. While it is true that such ratios may indicate the terms under which a new investor might devote his money to the business, it does not mean that they should measure the return the applicant is entitled to receive on its investment in its properties. Certainly, the dividend rate the management has elected to establish for its common shares should not be used in arriving at the return the consumer should pay on the rate base.[31]

It should be pointed out that a fair return to investors is not necessarily fair to consumers.[32] Utility rates set by the "cost of money" approach may well be unfair to consumers, hence the "cost of money" does not provide a conclusive method of determining such rates. The same can be said of the rate base method. Neither method gives assurance of fairness to consumers.

There is also a question whether the rate structure that would prevent a "flight of capital" is the same as that which would

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30. *New Mexico State Corporation Commission v. Mountain States Telephone & Telegraph Company,* 58 N. M. 260, 270 P. 2d 685 (1954).

In California, an electric company was recently authorized to increase rates to produce a return of 6.9 per cent where increased operating cost and the loss of its largest customer had resulted in a substantial reduction in revenues. *Re: Bay Point Light & Power Company,* 6 PUR 3d 125 (1954). In Missouri a return of 6.09 was recently deemed adequate for a natural gas company. *Re: Missouri Public Service Company,* 6 PUR 3d 88, 90 (1954). The Illinois commission has recently considered a return of 5.5 per cent on the fair value of a telephone company's property for intrastate operations just and reasonable. *Re: Southwestern Bell Telephone Company,* (Illinois Commerce Commission) 6 PUR 3d 41, 44 (Oct. 20, 1954). Maryland has determined that a fair and reasonable return for a natural gas company was at a minimum of 5.75 per cent and a maximum of 6 per cent. *Re: Cumberland & Allegheny Gas Company,* (Maryland Pub. Serv. Comm.) 6 PUR 3d 25, 29 (Sept. 22, 1954).

The Vermont commission recently authorized a telephone rate increase calculated to yield a 6 per cent return. It said that this return was not excessive but was sufficient to enable the company to attract capital. *Re: Springfield Local Teleph. Co.* No. 2672, November 22, 1954. 55 PUB. UTIL. FORT. 231 (1955). Rate increases designed to produce returns of 5.8 per cent for the electric department and 5.95 per cent for the gas department of a gas and electric company have been considered reasonable in Illinois. *Re: Central Illinois Electric & Gas Company,* 6 PUR 3d 108, 114 (1954).

North Carolina has approved a 6.5 per cent return on net investment for a telephone company as fair and reasonable. *Re: Albemarle Teleph. Co.,* (N. C. Lt. Comm.) 2 PUR 3d 30, 32 (1953).

31. *Re: Southern California Edison Co.,* Application No. 33952, No. 50449, August 17, 1954. 54 PUB. UTIL. FORT. 544 (1954).

32. *Federal Power Comm. v. Natural Gas Pipeline Co.,* 315 U. S. 575 (1942).

achieve what may be called an "inflow of capital."[33] It is the latter that is important in a dynamic economy. The commission presumably wishes the utilities to expand as the needs arise and as innovations become available. To prevent a flight of capital is merely to insure stagnation. Because of the factor of inertia it is reasonable to assume that a higher return is necessary to attract capital than to prevent its flight. Thus the test should not be "flight of capital" but the higher return of "inflow of capital."

There is some difficulty in meeting the Public Service Commission's requirements on evidence as to flight of capital and the cost of money for purposes of determining the rate of return. In a brief filed in November 1953 by the Niagara Frontier Transit System the cost of equity capital was computed on the market price of common stock.[34] What was essentially involved was a price-earnings ratio. In its decision (favorable to the Company), the Commission adopted its examiner's report objecting to the computation on two grounds, but conceding that the data had relevance. The examiner said:

> Apart from other considerations, it is questionable if such computations for a company so recently reorganized and which has never paid a dividend on its outstanding stock since reorganization, serve to give a proper indication of the return which might be proper upon a stable rate base. Certainly such computations cannot be taken as valid criteria of the percentage relationship which net operating income after taxes should bear to the book value of operating omnibus property. It does perhaps serve to point up the fact that even a reorganized company cannot hope to continue operations indefinitely without return to its equity security holders and that continuation of the spiral of increasing wages and declining traffic must result in higher fares or curtailment of service, or both.[35]

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33. For a comparative review of various meanings of "cost of capital" see Foster, *Capital Cost and Fair Return*, 54 PUB. UTIL. FORT. 267-282 (1954).

34. "Brief of Niagara Frontier Transit System, Inc." in case No. 16384, *Re: Niagara Frontier Transit System, Inc.*, (N. Y. Pub. Serv. Comm.) at 30 note 5 (1953).

The New York hearings are replete with expert testimony. In Ohio, where the company president was the only one to testify on the cost of money, the commission felt that the burden of proof was not sustained by the company and that the company "should have introduced further evidence to support the cost of money . . .." *Re: Mt. Vernon Telephone Corporation*, (Ohio Pub. Ut. Comm.) 6 PUR 3d 1, 8 (Oct. 22, 1954). (There is a strongly worded dissent). A simple historical stock price averaged over a period of ten years has been held to be an improper approach to the cost of equity money in Massachusetts. *New Eng. Teleph. & Teleg. Co. v. Department of Public Utilities*, 327 Mass. 81, 97 NE 2d 509 (1951); recently relied on in *Re: Pittsfield Coal Gas Company*, (Mass. Dept. of Pub. Ut.) 3 PUR 3d 1, 5 (Feb. 18, 1954).

35. Case No. 16384. *Re: Niagara Frontier Transit System, Inc.*, (N. Y. Pub. Serv. Comm.) 31 (1954). (Mimeographed). In an earlier case, where a similar method was used, the Commission did not put its criticism in this form but did say that ". . . none of the annual rates . . . purports to be a measure of the present cost of money to

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The Commission examiner is emphasizing that book value is to be used as the ultimate basis of computation rather than the market prices of equity securities. This reopens the question as to the function of the "cost of money" evidence. If we are trying to find what a prospective investor will require, can we assume that *he* will make a comparison of earnings (or dividends) with *book value* rather than the price he has to pay or is willing to pay on the market? Will earnings or dividends as a percentage of book value of equity securities tell us anything at all about the cost of new money to the company?

In assessing the cost of money evidence it must constantly be borne in mind that the Commission computes the ultimate rate of return on the original cost base. In an earlier telephone case it said:

> Under all the facts and circumstances we find that a return computed on an original cost rate base less depreciation reserves as of this time would be in the vicinity of 6 per cent. We make no finding as to the proper rate of return upon any other form of rate base.[36]

But if the Commission wishes to take account of the necessity of attracting capital in determining the proper rate of return on original most the earnings and dividends in relation to the market prices of the equity securities are pertinent, rather than earnings or dividends as a percentage of original cost. "Cost of money" cannot be based initially on original cost even if it is to be translated later into a rate of return on the original cost.

Once we take as our aim the attraction of future capital to the utilities we are in the complicated realm of the inducement to invest. What induces a person to invest in a particular line of business? To what extent will a future investor be influenced by how present investors are treated? There is no denying that the two are closely related.[37] The final test is what the investor

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the company." *Re: Consolidated Edison Co. of New York, Inc.,* 96 PUR (NS) 194, 415, No. 12455, N. Y. Pub. Serv. Comm. (1952).

The relation between the return on old and new equity capital has been well stated by the Massachusetts court: ". . . [C]ommonly a company cannot issue new stock which will have a preferred position over stock already outstanding, and . . . the rate must therefore be sufficient to pay the same dividends upon all the stock that are required to enable the company to sell new stock." *New England Tel. & Tel. Co. v. Department of Public Utilities,* 327 Mass. 81, 97 N. E. 2d 509, 513 (1951). *But see* Springer, *A Fair Return for a Natural Gas Utility,* 54 PUB. UTIL. FORT. 500, 502 (1954).

36. Case No. 15235, *supra,* note 14 at 40 *Cf.* p. 42.

37. Rose, *The Bell Telephone System Rate Cases, supra,* note 6 at 715 n. 57, labels as "sound economic principle" a statement that ". . . the only significant cost at the present time is that economic cost which is established by the marginal productivity of
(Footnote continued on following page.)

does when he is offered utility shares. It is a difficult test yet it is apparently the one to which the Public Service Commission is committed by its emphasis on flight of capital.

To say that evidence of inflation will be used in setting the rate of return to be applied to the cost of the property does not guarantee that the inflation in plant and equipment is actually taken into account in any way. High percentage rates of return on equities do not necessarily accompany high plant and equipment prices. The utilities ask for consideration of the rise in commodity and property prices; the Commission is willing to consider the rise, if any, in rates of return on equities. The fundamental difference is this: The current rate of return on equity capital is influenced by *future* inflationary prospects among other things; the fact that prices of plant and equipment are now high compared with some *past* period may not be reflected fully or at all in the current rate of return on equities. Thus consideration of current price levels compared with past price levels does not necessarily show up in the rate of return nor does it give the utilities the relief they are seeking.

In short, price increases that have occurred are not actually reflected in the rate of return insofar as the latter is based on the "cost of money".[38] If an original cost rate base is also used, inflation in plant and equipment prices appears nowhere in the computation.

3. Debt Ratio

In computing the cost of capital it is necessary to know how much debt capital and how much equity capital is involved. The Commission looks into the debt ratio and proposes to set rates on the assumption that debt rather than equity capital be used at least partly in financing new capital expenditures. The Company may, of course, issue shares if it wishes, but it should not then expect the Commission to use the actual capital structure in determining how much income should properly be provided: a hypothetical debt ratio is used for that purpose. The Commission is strongly impressed by the fact that the yield on debt capital is

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the capital in alternative employment in the immediate future." Once we are in the realm of inducement to invest, however, we must consider whatever the investor considers. It has sometimes been said that "bygones are bygones in economics." In the field of investment it is more accurate to say "bygones are gone but not forgotten." Somers, *A Theory of Income Determination*, 58 J. Pol. Econ. 523, 539 (1950).

38. See Bonbright, *Utility Rate Control Reconsidered in the Light of Hope Natural Gas Case*, 38 Am. Econ. Rev. 465 (1948). *Cf.* 2 Bonbright, Valuation of Property, 1078-1165. See also Morton, *Rate of Return and the Value of Money in Public Utilities*, 28 Land Econ. 91 (1952) and Note, *Original Cost Rate Regulation and Inflation*, 66 Harv. L. Rev. 1274, 1275 (1953).

generally lower than that on equity capital and that corporate dividends are derived from income that is subject to tax while interest expense is tax-free.

Where debt capital costs in the neighborhood of only 3½%, as in the present case,[39] this debt ratio is of the greatest importance in setting telephone rates that will yield a rate of return on the cost basis in the neighborhood of 6%, the Commission's target rate.[40] The cost of money derived through issuance of debt is low relative to the cost of money derived through issuance of equities: debt is "cheap money" and equities are "dear money" we may say. For reasons of sound business practice the Company nevertheless chooses to keep the debt ratio low although that raises the net cost of money as a whole. For example, if debt costs 3% and equity capital costs 8% the sum of $1,000,000 can be raised at a cost of 3% with a 100% debt ratio; 8% with a 0% debt ratio; 6⅓% with a 33⅓% debt ratio; and 5.40% with a 45% debt ratio. The current pay-outs to debt and equity holders would be as follows to raise the $1,000,000:

Debt Ratio	*Pay-outs*
100%	$30,000
0%	80,000
33⅓%	63,333
45%	54,000

The Company's target in the current case is a debt ratio of 33⅓% while one of the Commission's witnesses used a ratio of 45% (the present ratio being 38%).[41] The telephone rates would have to be higher to finance a 33⅓% ratio than a 45%, hence the Commission's concern with debt ratio. As pointed out above, this

39. Case 16548, *supra*, note 1 at 30.

40. *Id.* at 33.

41. *Id.* at 26-27, 30. In an earlier case the Commission refused to use a hypothetical capitalization. *New York Tel. Co.*, 84 PUR (NS) 267, 290 (1950).

The Pennsylvania commission has expressed the opinion that the capital structure at any particular date was not of material significance: that the average over a reasonable period of time was of far more significance. It took account of three capital structures: the company's actual capital structure; a structure consisting of equal portions of debt and common stock; and a structure consisting of 45 per cent debt, 10 per cent preferred stock, and 45 per cent common stock. It considered the following cost rates reasonable: 3.25 per cent for long-term debt; 4.5 per cent for preferred stock; and 9.2 per cent for common stock; the overall current cost of capital being 6.05 per cent. *Pennsylvania Pub. Utility Commission et al. v. Peoples Nat. Gas Co.*, Complaint Docket Nos. 15980, 15981 (1954). 54 PUB. UTIL. FORT. 850-851 (1954).

In a recent decision, the Supreme Court of Idaho rejected the commission's use of a 45-55 debt ratio and ruled that a ratio no higher than 40-60 should be used, the actual ratio being 30-70. *Re: Mountain States Teleph. & Teleg. Co.* No. 8194, December 22, 1954. 55 PUB. UTIL. FORT. 287-288 (1955).

Massachusetts recently used the actual debt ratio of 34.2 per cent in the case of an independent gas company. The regulatory body said: "While this is probably an

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discrepancy is aggravated by the fact that interest paid is tax-deductible while dividends are not.

This debt ratio may also affect the cost of money if investors are influenced by the ratio in deciding how much to pay for a given stock. Perhaps a low debt ratio gives a prospective buyer of stock a greater feeling of confidence in stability of dividends with the result that he is willing to pay a high enough price that a $9 dividend represents merely a 5% cost of equity capital. Thus a low debt ratio may actually lower the cost of money if it lowers the cost of equity capital sufficiently. (It may also lower the cost of money by lowering the cost of debt money: the less debt, the safer creditors feel). It is not at all evident, therefore, that the Commission's insistence on a high debt ratio actually favors low telephone rates. Just how prospective investors are affected by the debt ratio is to be determined. Since the Commission now emphasizes "cost of money" it cannot properly ignore this factor in determining the probable cost of money under various hypothetical situations. The Commission recognizes this possibility by saying, "If, as the company contends, this [constant decline in the debt ratio] produces an added margin of safety, it should also have a tendency to reduce the required rate of return."[42]

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uneconomic capitalization under present conditions, it appears that it has been many years since respondent has been obliged to go into the market for equity financing, and all of its new financing in recent years has been accomplished by the issuance of long-term debt. Respondent is an independent operating unit, its stock being publicly held. Under these circumstances, we will adopt the actual debt ratio as proper for use in this case." *Re: Pittsfield Coal Gas Company* (Mass. Dept. of Pub. Ut.), 3 PUR 3d 1, 5 (1954).

Utah has adopted 40 per cent in face of an actual figure of 29.40 per cent. *Re: Mountain States Teleph. & Teleg. Co.* (Utah Pub. Serv. Comm.), 2 PUR 3d 75, 81 (1953).

New Jersey approved a debt ratio of 63.9 per cent in the case of a water company (the maximum usually allowable being 60 per cent) under special circumstances. *Re: Commonwealth Water Company* (N. J. Bd. of Pub. Ut. Comm.), 2 PUR 3d 58, 60 (1954).

Arkansas refuses to use a hypothetical debt ratio: "We should be indulging in pure speculation if we were to select a hypothetical debt ratio and adjust the actual costs of debt and equity capital to what we may think the investors would require in the circumstances of an assumed change in the quality of the investment." It adopts the existing 40 per cent debt ratio as reasonable. *Re: Southwestern Bell. Teleph. Co.* (Ark. Publ. Serv. Comm.), 2 PUR 3d 1, 12 (1953).

Colorado adopts a hypothetical capital structure when the actual financial structure is not in the public interest because the debt ratio is too low. *Re: Mountain States Teleph. & Teleg. Co.* (Colo. Pub. Ut. Comm.), 1 PUR 3d 129, 140 (1953).

42. Case 16548, *supra,* note 1 at 34.

The same problem arose in New Mexico in another recent telephone case (also part of the Bell system). The highest court of the state said:[43]

> Debt ratio is strictly a matter for management, but its evaluation in fixing rates is an item for serious consideration by the rate-making body.

Does not the use of a hypothetical debt ratio in rate-making necessarily put pressure on management to change the debt ratio in a direction which it considers undesirable? The company is treated as if it had a less expensive debt ratio than it actually has. It is penalized for its managerial decision. The problem, though, is how much? Since we are committed to a psychological analysis of the prospective investor we cannot ignore this element.

It should be noted parenthetically that the dividend exclusion and credit in the Internal Revenue Code of 1954, Sections 34 and 116 benefit the shareholder directly, not the corporation. Only by making equity securities more attractive and thus lowering the dividend payments that the Company finds it necessary to make can the new tax provisions reduce the burden on the corporation. For instance, will an $8 dividend be just as attractive to shareholders under the new law as the $9 dividend was under the old? It is likely that there will be some effect, but the magnitude cannot be determined in general.

The Commission is well aware of the fact that a high debt ratio has its dangers. It speaks of the desirability of leaving a margin of unused credit for future use. "Too high a debt ratio

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43. *State Corporation Commission v. Mountain States Telephone & Telegraph Company*, 58 NM 260, 270 P. 2d 685 (1954).

Cf. New England Tel. & Tel. Co. v. Department of Public Utilities, 327 Mass. 81, 97 N. E. 2d 509, 514 (1951).

> . . . [W]e agree of course that a public regulatory body cannot assume the management of the company and cannot under the guise of rate-making interfere in matters of business detail with the judgment of its officers reached in good faith and within the limits of a reasonable discretion. *State of Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission of Missouri*, 262 U. S. 276, 288-289 (1923); *Banton v. Belt Line Railway Corp.*, 268 U. S. 413, 421 (1925); *New England Telephone & Telegraph Co. v. Department of Public Utilities*, 262 Mass. 137, 146, 159 N. E. 743, (1928); *Havre De Grace & Perryville Bridge Co. v. Public Service Commission*, 132 Md. 16, 22-24, 103 Atl. 319, 321 (1918). But we think that in this instance, in circumstances now existing and especially in proceeding upon the "cost of capital" theory, the debt ratio is not a matter of that kind.

More recently, the same court has said, in effect, that the Company could set up any capital structure it wished and the commission could use a hypothetical structure. The debt ratio had, in the meantime been reduced to 36.1 per cent from 62.1 per cent and the commission (department) continued to use 45 per cent. *New England Telephone & Telegraph Co. v. Department of Public Utilities*, ___ Mass. ___ 121 N. E. 2d 896, 900-905 (1954). See also 54 PUB. UTIL. FORT. 777 (1954).

as a long time policy may well be as expensive as too low a one."[44] The more serious problem of reorganization or bankruptcy in case of a serious decline in business should also be considered by the Commission. The fixed obligation of debt may lead to drastic legal consequences compared with the flexibility inherent in equity capital. Although a telephone company is relatively invulnerable to such contingencies, they cannot be ignored in rate-making in general.

One may raise a question concerning the Commission's refusal to accept the Company's existing or prospective debt ratio as the basis for the computation of rate of return. The Commission substitutes its own judgment as to capital structure for the management's judgment. Since debt ratio is unquestionably a matter on which reasonable men may differ, and comes within the scope of managerial discretion, there is doubt whether the Commission should attempt to impose its own judgment in a question of this sort.

4. Additions to Surplus (Pay-Out Ratio)

Another factor related to the cost of money is the surplus to be accumulated, i. e. the earnings that are to be permitted over and above the dividends paid out. A Commission witness argued for a 80% pay-out in the current case, a Company witness for a 65% pay-out. If it is settled how much has to be paid out, such as $9 per share, the 80% figure would require net earnings of about $11 per share while the 65% figure would require net earnings of approximately $14 per share. The crucial question is this: will the prospective investor be influenced by the amount of reserve that is being built up, i. e., by the surplus being accumulated, in short, by the pay-out ratio? Would he not be willing to invest on the basis of receiving, say $8 a share if he knows that a surplus of, say $6 is being reserved; even though he insists on $9 a share if, say, only $3 is being reserved? In short, does not the pay-out ratio affect the cost of money? This is a question of fact, and one

44. Case 16548, *supra,* note 1 at 25. *Cf.* ". . . [W]e suppose it is a matter of common knowledge, that the proportion of debt capital cannot be extended indefinitely without adversely affecting the credit of the company, injuring the market for its stock, and to some degree that for its bonds also." *New England Tel. & Tel. Co. v. Department of Public Utilities,* 327 Mass. 81, 97 N. E. 2d 509, 512 (1951). *Cf. Re: Connecticut Power Company* (Connecticut Public Utilities Commission), 5 PUR 3d 65, 67 (1954).

The Pennsylvania commission stated in a recent case that the cost of common stock capital generally tends to decrease in relation to significant increases in the proportion of common equity in the capital structure. *Pennsylvania Pub. Ut. Commission v. Elkwood Consol. Water Co. et al.,* Complaint Dockets 15995 et al. July 12, 1954, 55 Pub. Util. Fort. 112 (1955).

There are some indications that equity financing may decline in the future partly because of internal financing through accelerated depreciation. See 54 Pub. Util. Fort. 712 (1954).

that is difficult to settle. One would certainly expect an investor to be influenced by the surplus, which increases the book value of the shares, but to what extent is he actually influenced? The Commission says:

> All witnesses agree that the principal consideration governing the market price of the company's stock is the amount of dividends paid (coupled, of course with a reasonable assurance that payment will be continued) and that retained earnings do not substantially contribute to the market price of the stock.[45]

The Commission undertook a detailed examination of the surplus necessary to ensure reasonable stability in the $9 dividend. For instance, it questioned the conservative investment policy of the pension fund. This might appear remote from the question of cost of capital but the Commission justified its approach by stating that the Company's payments to the fund are increased as a result of the conservative investment policy and the increased payments cut into potential surplus. The Company asks, in effect, that the cost of accumulating the surplus be passed on to the consumers. The Commission says, "Under the law we can properly disallow in fixing rates any wasteful or unnecessary expense of operation. Clearly, since the cost of capital is such an expense, it is our duty to determine what costs in obtaining money lie within the realms of reason."[46]

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45. Case 16548, *supra,* note 1 at 29, *Cf.* ". . . [G]ood authority supports the proposition that a public utility has a constitutional right to a sufficient return to enable it to accumulate a reasonable surplus." *New England Tel. & Tel. Co. v. Department of Public Utilities,* 327 Mass. 81, 97 N. E. 2d 509, 517 (1951).

The Pennsylvania commission is in agreement with the New York commission on this point. It has expressed the opinion that market yields (*dividends*—price ratios) were more significant than *earnings*—price ratios; that common stocks of utilities were bought more on the basis of the dividend yield than in terms of the earnings cushion behind the dividends, particularly in the case of a company with an extremely low payout record. *Pennsylvania Pub. Ut. Comm. v. Peoples Nat. Gas Co., supra,* note 41. The Massachusetts body has employed a 75 per cent pay-out ratio. *Re: Pittsfield Coal Gas Co.* (Mass. Dept. of Pub. Ut.), 3 PUR 3d 1, 5 (1954).

The Utah commission is more nearly in agreement with Massachusetts: "Sound business practice dictates that a continuing corporation should not pay out all of its earnings in dividends. The retention of part of the earnings in the business provided protection for future dividends and for unforeseen contingencies. Retained earnings also provide capital to the company." *Re: Mountain States Teleph. & Teleg. Co.,* (Utah Pub. Serv. Comm.) 2 PUR 3d 75, 84 (1953).

Arkansas allowed a 75-80 per cent dividend pay-out. *Re: Southwestern Bell Teleph. Co.,* (Ark. Pub. Serv. Comm.) 2 PUR 3d 1, 13 (1953).

Colorado feels that "the return should permit the payment of interest and reasonable dividends, and should leave something to be passed to the surplus account." *Re: Mountain States Teleph. & Teleg. Co.* (Colo. Pub. Ut. Comm.) 1 PUR 3d 129, 136 (1953). "It is our view that applicant requires equity earnings which would permit the payment of a $6 dividend and the accumulation within, say, four years of surplus to protect the dividend." *Id.* at 143.

The price-earnings ratio has been generally employed by utility commissions although dividends have been considered in some instances. See Rose, *The Bell Telephone System Rate Cases, supra,* note 6 at 716.

46. Case 16548, *supra,* note 1 at 24.

The above discussion is in terms of market price of the stock but it can readily be translated into the amount of dividend that has to be paid per share in any new financing. If the market price goes up because of a large surplus, the cost of money is lower because the company is receiving more dollars for each share for which it pays the $9 dividend. If the market price goes down the cost of money is higher because the company is receiving fewer dollars for each share for which it pays the $9 dividend.

To what extent is the market price, hence cost of money, influenced by retained earnings? Although the experts are agreed that the relation is minor, we need not rely solely on their opinion. Statistical devices are available and have been used to measure the probable effect.[47] Such devices can be applied to a particular stock and can be extended to take account of a large number of factors.

It is interesting to contrast the Commission's "hands-off" policy in the matter of wages with its willingness to intervene in Company decisions on capital structure (debt ratio and reserves) affecting the cost of money. The Commission says,

> . . . when an obligation has been incurred under which the employees of any company have vested rights, this Commission has no authority in law to revise the bargain and to take from labor that to which it is contractually entitled.
>
> * * *
>
> Here [with respect to reduced telephone rate to employees], as in the discussion on pensions, interference with the judgment of management would be injecting the Commission into what amounts to the company's present contract of employment.
>
> * * *
>
> This Commission has repeatedly asserted its position that it not interfere with the collective bargaining rights which have become inherently part of our American system and that any payment or benefit given labor, in the absence of proof of bad faith, is presumptively a proper expenditure for fixing rates.[48]

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47. See Johnson, Shapiro and O'Meara, *Valuation of Closely-Held Stock for Federal Tax Purposes: Approach to an Objective Method,* 100 U. PA. L. REV. 166 (1951).

48. Case 16548, *supra,* note 1 at 39. *Cf.* "In the absence of statutory authorization . . . it would hardly be contended that the commission has power to formulate the labor policies of utilities, to fix wages or to arbitrate labor disputes." *Pacific Tel. & Tel. Co. v. Public Utilities Commission of California,* 34 Cal. 2d 822, 215 P. 2d 441 (1950). The Massachusetts court has shown the same deference to the company's decision on certain expense allowances for pensions, overruling the regulatory department. *New England Telephone & Telegraph Co. v. Department of Public Utilities,* —, Mass. —, 121 N. E. 2d 896, 904-906 (1954). Similarly the Maine supreme court allowed the Company's policy of a 10-year amortization of lump sum premium payments in face of the commission's order that a 30-year period be used. *Re: Central Main Power Co.* FC No. 1410, December 14, 1954, 55 PUB. UTIL. FORT. 169 (1955).

One may commend the Commission for the respect it accords wage commitments and managerial judgment concerning them. It is clear, however, that similar respect should not be accorded managerial judgment in "cost of money" items such as capital structure, debt ratio, pay-out ratio and the like?

5. Recapitulation

We may now summarize the argument thus far. The procedure of setting utility rates in New York is as follows: (1) the *original cost* of investment dedicated to the public use is determined from accounting records; this is known as the rate base; (2) the *rate of return* that should be earned on that investment is determined by tradition as well as an examination of the capital market; (3) the rate of return is applied to the rate base, giving a dollar *amount of return;* (4) the *utility rates* are then set at a level that is expected to yield that dollar amount. The utilities have been claiming that the *original cost base* (1) does not allow for inflation in prices of plant and equipment. They therefore ask for some consideration of reproduction cost. The Public Service Commission prefers to keep to the relatively non-controversial cost base and take account of inflation—if at all—in the *rate of return* (2). It refuses to accept evidence on reproduction cost. Moreover, the greater level of business activity that usually accompanies inflation will show its effects in the market computations involved in setting the *utility rates* (4).

The main issue then centers about the determination of the *rate of return* (2). There is undoubtedly a heavy reliance on a sort of natural rate in the neighborhood of 6%. Expert testimony is, however, admitted on this subject and probably has some influence on the outcome. The rate is that necessary to attract capital or at least keep it from leaving. For this purpose it is necessary to see what rate the company pays (or has to pay) on its bonds and other debt, its preferred stock and its common stock. The rate on debt is relatively easy to determine except where there appears to be less than arms-length bargaining on the rate of interest. As for equity shares, especially common stock, there is reliance on the actual yield of outstanding securities together with expert testimony on the yield necessary to attract new capital. We may find, for instance, that debt capital requires 3% and equity capital requires 8%. These are combined to produce an overall *rate of return* (2). Two crucial questions arise: (a) What proportions shall be used in combining them? (b) How much income should be permitted over and above what is paid out to suppliers of capital? If we take the same amount of debt capital as equity capital, for instance, the overall rate would be 5½% in the above

example. Should the actual proportions be used? This would seem to be the proper procedure for (a) since we are dealing with an actual capital structure. The Commission, however, feels free to use its own hypothetical capital structure to combine the rates if it believes that the company is not making sufficient use of the less expensive debt capital. With respect to (b), should we take the actual payout ratio or a hypothetical one? For instance, if the company pays out $9 for every $12 it earns, making a pay-out ratio of 75%, should the Commission allow utility rates to be set high enough to continue adding $3 to surplus per share? When all these questions are answered we are in a position to determine the *rates of return* (2).

6. Rate Base and Rate of Return Under a "Cost of Money" Approach

There are some interesting consequences arising from the continued insistence by public utility commissions that there be established first a rate base, then a rate of return, and finally a utility rate structure, instead of going directly to a utility rate structure that ensures a reasonable amount of earnings. The New York commission says:

> If a rate base be used which is a matter of speculative judgment to which is applied a rate of return which is always a matter of opinion, both are arguable variables. With the use of an investment rate base, the property account is rarely in dispute. The answer as to the required number of dollars of income should be the same irrespective of the formula used. We think the end result can be more accurately reached by the method we have used.[49]

Here there is a clear admission of the fact that the "required number of dollars of income" is the figure to be determined and is independent of the base used. Another way of saying this is that with any given rate base, the rate of return will be adjusted so as to yield the independently determined "required number of dollars of income." Since the needed end result, the "required number of dollars of income" has to be determined independently anyway, why bother with going through the process subsequently of rationalizing that number by setting a rate base and rate of return?

The Commission is right in saying that the use of an investment base reduces the number of items to be argued about; or we may say that it concentrates the argument into the rate of return. Since the only grounds on which to argue about rate of return

49. Case 16548, *supra*, note 1 at 20.

stem from the desired level of utility income, the total amount of argument is set by the latter and the only remaining question is how to distribute the argument, whether to split it between the base and the rate of return or whether to use a non-arguable base and therefore concentrate the argument on the rate of return. The futility of this process is clear. Since the "required number of dollars of income" is considered necessary and the only thing necessary to set the utility rates, the subsequent hind-sight derivation of those dollars by applying some rate of return to some rate base is so much waste motion.

The question that arises is whether *any* rate base is needed in a consistent application of the "flight of capital" rule of rate-making. The aim is to set a rate which will result in earnings which will prevent a flight of capital for the needs of the business. The process of setting a rate base and then a rate of return is an unnecessary carryover from the old "fair value" days. Whatever the base, the rate of return will presumably be set so as to result in sufficient earnings to meet the "flight of capital" test. Why then go through the unnecessary motions of setting a base and a rate of return? Why not just decide on the level of earnings which will pay interest on debt and give an adequate return to the equity securities so as to make them sufficiently attractive in the capital market? Much waste effort would be eliminated and all parties would understand clearly what is involved. Motions for introduction of evidence on reproduction cost would no longer have to be denied—they would not have to be proposed in the first place. The evidence to be submitted and considered would be concerned with "cost of money", i. e. the yield on equity securities that would be necessary to attract capital. From that, together with data on the capital structure (actual or hypothetical—a point to be settled) could be determined the total desirable earnings. This could then be translated into a rate structure.

It should be pointed out that the device of going directly to the amount of return instead of using a rate base and rate of return is not to be confused with the procedure of setting utility rates without any factual basis whatever. Under the *Hope* decision (page .. above), the precise path taken by the administrative agency is left open (barring a controlling statutory requirement) as long as there is no abuse of the police power. Just as both original cost and reproduction are consistent with the *Hope* decision so are other reasonable methods of arriving at the end result. State courts have held, however, that some rate base is still neces-

sary.[50] These cases occurred in New Hampshire, Wisconsin and Vermont. They will be considered in some detail since they bear heavily on our problem.

In the New Hampshire case, the Public Service Commission set utility rates after a balancing of a great many factors. It made the statement:

> . . . We know, however, that as a practical matter it is the number of amount of dollars that a utility is permitted to earn that is important. Rate bases and rates of return are without significance except as related to each other.[51]

The court denies that the commission is no longer bound to disclose the "method employed." It refers to the fact that in the *Hope* case and in subsequent decisions, "the findings of the regulatory body whose orders were sustained disclosed a rational process by which a rate base and a rate of return were determined and applied, to produce the return translated into rates [citations omitted] . . . .."[52] The emphasis is on a "rational process" and on a disclosure of "method employed" to reach the prescribed

50. *New England Tel. & Tel. Co. v. New Hampshire,* 95 N. H. 353, 64 A. 2d; *Petition of New England Tel. & Tel. Co.,* 115 Vt. 494, 66 A. 2d 135 (1949); *Commonwealth Tel. Co. v. Public Service Comm.,* 252 Wis. 481, 32 N. W. 2d 247 (1948). Rose, *The Bell Telephone Rate Cases, supra,* note 6 at 702, n. 12 suggests that these cases indicate that "some rate base appears still essential."

The following commission action in New Jersey has recently been reported: "The New Jersey Board of Public Utility Commissioners refused to establish permanent intrastate railroad commutation rates in the absence of evidence as to the value of the railroad's property used in providing service, the related expenses, and a rate of return, thereby confirming the necessity for a rate base, saying that if a rate base is not reasonably supported by the proofs, the rate itself is unreasonable." *Re: New York, S. & W. R. Co.* Docket No. 8164, October 27, 1954, 55 PUB. UTIL. FORT. 57 (1955).

The Colorado body on the other hand has insisted that in determining the fair value of the property it was "not required to follow any particular set formula." *Re: Mountain States Teleph. & Teleg. Co.* (Colo. Pub. Ut. Comm.) 1 PUR 3d 129, 133 (1953). Nor is there any "one formula or set of formulas that the commission can rely upon to arrive at a fair rate of return, nor can such rate of return be fixed solely by any mathematical calculation." *Id.* at 144.

Cf. "It is the opinion of the Commission that a rate of return based upon the 'Cost of Money' not only ignores the right of the public to reasonable rates and gives precedence to the right of the investor to a fair return, but also is too speculative and conjectural to be accorded any weight in the determination of a fair and reasonable 'Rate of Return.'" *Re: Southern Bell Teleph. & Teleg. Co.* (Florida Railroad & Public Utilities Commission), 92 PUR (N. S.) 335, 353 (1952).

The Circuit Court of Appeals of the District of Columbia has said: "It has even been intimated that a commission may use some method of calculating rates other than the traditional one which depends upon the finding of a rate base" [citing *Colorado Interstate Co. v. Federal Power Comm.,* 324 U. S. 581, 601 (1945)]. *Public Utility Comm. v. Washington Gas & Light Co.,* 188 F. 2d 11, 18 (D. C. Cir. 1950). See Note, *Hope Case and Recent Federal Decisions,* 54 W. VA. L. REV. 305 (1952).

51. *New England Tel. & Tel. Co. v. New Hampshire, supra,* note 50, 64 A. 2d at 12. See Note, *State Public Service Commission, Required to Adopt Rate Base Method in Determining Telephone Rates,* 62 HARV. L. REV. 1247 (1949).

52. *New England Tel. & Tel. Co. v. New Hampshire, supra,* note 50, 64 A. 2d at 14.

rates, so that "the validity of its conclusions may be tested upon judicial review."[53] There is no requirement in this case that the old formula of rate base and rate of return be used. The "cost of money" approach can surely be claimed as a rational process capable of judicial review. It is only after reference to a New Hampshire statute which speaks of ". . . a reasonable return on the cost of the property . . ." (R. L. c. 292 § 28) that the court decides, "In this case, a definite finding by the commission of the base upon which the company is entitled to a return is required by New Hampshire law."[54] Again, when the court speaks more generally it merely says, "In our opinion, the relief furnished by the *Hope* case from the Constitutional restrictions of a formula, do not operate to relieve the Commission of the duty to make findings of fact essential to permit review of its conclusions."[55] There is no reference here to rate base or rate of return. There is even a suggestion that another method might be acceptable in the statement: "The record appears to afford no basis for determination of a proper return by any process other than the usual rate base method."[56]

In the Wisconsin case the commission's findings of fact were simply the following:

> 1. That the existing rates applicable to the service furnished by Commonwealth Telephone Company by and through the facilities of its Two Rivers exchange afford an excessive profit to said utility and are therefore unreasonable.
>
> 2. That the rates herein prescribed for such services are just and reasonable.[57]

It need hardly be pointed out that a holding that these findings of fact are inadequate does not mean that the court is holding that the traditional method of rate base and rate of return is necessary. The court does make a reference to rate base in its statement:

> How can the Commission or the reviewing court or the utility or the public determine whether the profit is proper unless the Commission makes specific findings of the 'relevant facts and circumstances'? The Commission must determine what those are and set them forth as required by law. Those essential facts which control each case will then determine the rate base.[58]

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53. *Ibid.*
54. *Ibid.*
55. *Id.*, at 15.
56. *Id.*, at 16.
57. *Commonwealth Tel. Co. v. Public Service Comm., supra*, n. 50, 32 N. W. 2d at 247 (1948).
58. *Id.*, at 248.

The reference to "rate base" here appears to be incidental, the main plaint being that there were no specific findings of the "relevant facts and circumstances." The final holding is: "The present method of the Commission is improper and must be abandoned".[59] There is no holding that there must be a rate base and rate of return.

In the Vermont case the court refers to the necessity of a rate base. Much of its concern is, however, with the commission's failure to make adequate findings on matters of expense. This is not a problem of rate base but one which arises under the "cost of money" approach as well since the expense item is the connecting link between the amount of return (however arrived at) and the utility rates themselves. (Amount of net profit plus expenses equals gross receipts). The *Hope* case is cited simply to the effect that it "did not change this rule ["a proper rate base and allowable expenses"] for . . . this case did not reject judicial right of review as to reasonableness of rates and obviously if it be held that no yardstick is necessary whereby to test this question then judicial review as to reasonableness of rates would become utterly meaningless."[60] It cannot be assumed that the Vermont court would have insisted on a determination of rate base if the other parts of the commission's findings of fact were adequate to an evaluation of the reasonableness of the rates.

It is submitted that the United States Supreme Court might find that a total absence of rate base is consistent with its decision in the *Hope* case and safeguards both procedural and substantive due process, provided that an adequate factual basis exists otherwise for the utility rates that are established. The Court said in that case (reiterating in part a statement made in an earlier case[61]):

> . . . the Commission was *not bound to the use of any single formula* or combination of formulae in determining rates . . .

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59. *Id.* at 249.

60. *New England Tel. & Tel. Co.*, ___ Vt. ___, 66 A. 2d 135, 139 (1949).

In *New England Tel. & Tel. Co. v. Kennelly*, ___ R. I. ___, 98 A. 2d 835, 837, 839 (1953), the court remanded to the public utility administrator for clarification and amplification there the administrator had not shown "on what basis or rate" he had selected the amount which he considered the company entitled to receive as net income. The administrator had rejected the attraction of capital as a factor and had said that he considered that "the paramount issue in this proceeding is to provide respondent with sufficient net telephone earnings for the adequate maintenance and operation of its existing plant". The court stated that ". . . the basis upon which the decision and order of an administrator rests should be disclosed . . .". The court did not, however, specifically require the rate base-rate of return method.

61. *Federal Power Commission v. Natural Gas Pipeline Co.*, 315 U. S. 575, 586 (1942).

> And when the Commission's order is challenged in the courts, the question is whether that order *"viewed in its entirety"* meets the requirements of the [Natural Gas] Act . . . Under the statutory standard of "just and reasonable" it is the *result reached* not the method employed which is controlling . . . [citations omitted] . . . It is not the theory but the impact of the rate order which counts. If the *total effect* of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. [Emphasis supplied throughout.][62]

Florida apparently accepts this interpretation fully:

> The Florida commission has never been greatly concerned over the rate of return. It has been much more interested in the dollar requirements of the utility. How many dollars does the utility require in order to meet its operating expenses, depreciation charges, taxes, maintenance expense, debt service, dividend requirements, and transfer a reasonable amount to surplus? When the commission has been able to determine the answer to this question then the rate of return becomes a simple matter of computation.[63]

The waste motion involved in the traditional procedure is demonstrated almost painfully in a recent Nebraska decision which first sets the earnings and then computes various possible rates of return on various possible rate bases. It finds that:

1. Annual net telephone earnings in the amount of $2,127,022 is a fair and reasonable return to the applicant and would enable the company to pay its debt charges and a reasonable dividend on its stock and provide a reasonable amount for surplus and that such a return upon investment would attract the capital required for plant additions and improvements.

2. An annual return of $2,127,022 is equivalent to a rate of return of 5.97 per cent on a rate base of $35,635,849, or 4.44 per cent on a rate base of $47,868,640, or 6.05 per cent on a rate base of $35,157,936, or 6.27 per cent on a rate base of $33,916,742, and that the respective rate of return on any of these bases is fair and reasonable.[64]

A caveat must be issued on any prediction as to what the Supreme Court might do if it ever heard the telephone cases. The *Hope* case was concerned with a federal regulatory body and with a federal statute which prescribed "just and reasonable" rates.

62. *Federal Power Commission v. Hope Natural Gas Co.,* 320 U. S. 591, 602 (1944).

63. Petteway, *Utility Regulatory Climate in Florida,* 54 PUB. UTIL. FORT. 563, 569 (1954).

64. *Re: Northwestern Bell Telephone Company* (Nebraska State Railway Commission) 5 PUR 3d 24, 30 (1954).

The likelihood is strong that in such a situation the rigamarole of rate base and rate of return might be dispensed with, in view of the quotations given above. What the Supreme Court would do in reviewing a State court's review of a State administrative agency's application of a State statute requiring consideration of "value" is another matter. At any rate, if our interpretation of the *Hope* decision is valid, that decision cannot be considered an absolute bar to the simpler approach to rate-making suggested here: to determine the number of dollars of income required to ensure adequate capital and set utility rates that will yield that income. Rate base and rate of return would be ignored in the absence of a statutory requirement that they be considered.

In short, in a jurisdiction committed entirely to the "cost of money" approach, it matters little whether original cost or reproduction cost is used as the rate base. The rate of return will be adjusted accordingly so as to yield the same total number of dollars, i. e. the number of dollars required to prevent a flight of capital. As long as the rate base and the rate of return are kept inversely related to each other so that their product results in the same dollar figure, any requirement that the commission consider reproduction cost in setting the rate base will be abortive. If the telephone company succeeds in imposing this requirement in the current case, it will still have before it the task of convincing the commission or the court that a lower rate of return on a higher rate base conflicts with the statutory or constitutional standard even though the resulting number of dollars is the same as before and is sufficient to prevent a flight of capital. That will bring us back once more to the wording of the New York statutes and the constitutional aspects of the *Hope* decision. The question will then be: Can the commission set rates just sufficient to meet the "cost of money" even though the statute says it must give due regard, among other things "to a reasonable average return upon the value of the property . . ."? In other words, does the "cost of money" approach meet the statutory standard for telephone companies in New York?